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DESCRIPTIVE CATALOGUE

OF THE

PATHOLOGICAL SPECIMENS

CONTAINED IN

THE MUSEUM

OF

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

SUPPLEMENT I.

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NOTE.

The publication of the Five Volumes of the Descriptive Catalogue of the Pathological Specimens contained in the Museum of the Royal College of Surgeons was completed in the year 1849.

The present Volume contains the descriptions of the specimens added to the series since that time. They consist mainly of donations from various Fellows and Members of the College, and include the valuable collection, especially rich in illustrations of diseases of the bones, formed by Sir Stephen Love Hammick, Bart., during his connexion with the Royal Naval Hospital at Plymouth, and presented by him to the College in 1851.

The new specimens are numbered as nearly as possible in accordance with the arrangement of the previous Catalogue, and are distinguished by Roman capital letters, following the number of the old specimen which they most nearly resemble in character. Thus, Number 186 in the Catalogue is a fatty tumour: an additional specimen of the same disease in the Supplement is 186 A; a second additional specimen 186 B, and so forth.

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SPECIMENS IN THE GALLERIES.

Series II.—ATROPHY.

9 A. Portion of a gastrocnemius muscle almost entirely converted into fat. A small quantity of muscular tissue was found in some parts, which, when examined microscopically, presented the normal structure of striated muscular fibres, without any deposition of oil-granules within the sarcolemma; but the greater portion of the mass consists of areolar tissue, containing within its meshes numerous adipose cells, which appears to have replaced the atrophied muscular tissue. All the muscles of the leg were in the same condition, still retaining their form, so as to be readily identified, especially near the tendons. Where the bellies of the muscles were in contact, they were not easily separated, either by the eye or knife, the substance of which they were composed being little distinguishable from the adjacent areolar and fatty tissues.

From a middle-aged man, who, from deficient nervous power in early life, lost the use of the limb below the knee joint. Finding the useless, wasted member a source of great inconvenience, he desired to be relieved of it by amputation, which was performed seven inches above the knee.

Presented by R. Partridge, Esq., November 20, 1851.

9 B. A dissected specimen of non-congenital club foot (equino-varus), of paralytic origin, and of fifty years' standing. The bones of the foot are softened and fragile. A very thin layer of cartilage alone remains to cover the articular surface of the astragalus; and the outer shell of the bone itself is no thicker than the cartilage, whilst the cancellous tissue is a mass of fat and oil, with some few spicules of bone interspersed.

All the muscles of the leg and foot are in an advanced state of fatty de-

generation; those situated on the anterior aspect of the leg are of a pale yellow and fawn-colour, and have still the fasciculated appearance of muscle; but those in the posterior region are scarcely to be distinguished from masses of fat. On microscopical examination, some of the muscles were found to be composed almost entirely of areolar tissue, the interstices filled with fat-globules and granules. In some parts muscular fibres remained, with transverse striæ, though the greatest number were filled with granular fatty molecules. A few of the fibres exhibited "a breaking up into transverse laminæ."

The limb was removed from a female, at 51, by Mr. Hester of Oxford, on the 4th of October 1858. Distortion commenced during the earliest period of infancy; it was probably occasioned by paralysis, consequent on dentition. When she began to walk, the heel of the foot could not be brought to the ground; and the distortion increased gradually, until the foot had assumed a vertical direction. Notwithstanding the deformity, she walked firmly and without pain, until ulceration took place on the dorsum of the foot. This continued to extend for six years, rendering the limb useless and painful. Amputation was therefore performed.

The specimen is figured, with a full description, in the 'Transactions of the Pathological Society of London,' vol. x. p. 279.

Presented by Bernard E. Brodhurst, Esq.

Series III.—REPAIR AND REPRODUCTION.

43 A. A Hermit Crab of which the right maxilla, having been lost by accident, is in process of reproduction. Besides being smaller than the other, it is soft-looking and pale in colour.

Presented by T. H. Stewart, Esq.

68 A. Thirty-one pins and one needle (part of a larger number) passed by, or extracted from, the urethra of a girl eighteen years of age.

The patient was of strumous constitution and subject to hysterical fits, which were frequently attended with vomiting of blood. While under treatment for these affections, on the 26th of February 1835, the abdomen became distended, with great pain and a sense of pricking, attended also by shiverings and pains in the back and loins. On the 27th a pin passed by the urethra; on the following day another and two needles. On March the 1st

three pins were voided, and but half an ounce of urine passed during the day. For about three weeks the quantity of urine varied from four ounces to a pint daily, though on some days it appears that more passed. During this time many pins and needles were passed or extracted, accompanied by a small quantity of pus and occasionally blood in the urine, and swelling and redness of the external organs of generation. Subsequently to the 25th of March, ten more pins and one needle were passed, after which she entirely recovered from the symptoms above described. The girl confessed to having swallowed pins from time to time in sport; but it is more probable that she inserted them directly into the bladder.

Presented by John C. Bellamy, Esq.

70. The actual gun-breech and screw, the history of which is described in the Catalogue, having been presented to the College, is now put in the place of the cast.

70 A. Part of the shaft of a rocket, which entered the left orbit (just above the inner canthus) of James Watkins, aged 45, and buried itself to a depth of $5\frac{1}{2}$ inches, taking a direction nearly parallel with the mesial plane, and apparently immediately under the base of the skull.

The accident occurred at Toronto, Canada West, on the 4th of May 1859. The piece of wood was extracted by Mr. Beaumont about an hour after; but so tightly was it jammed in the bones through which it passed, that great force had to be used. The man recovered rapidly, being up and dressed three days after the receipt of the injury, and within six weeks was perfectly well, except that the left eye remained amaurotic, and the integument below the orbit void of sensibility.

Presented by W. R. Beaumont, Esq.

Series IV.—PROCESS AND EFFECTS OF INFLAMMATION.

78 A. Portion of the heart and pericardium of a troop-horse belonging to the 2nd Life Guards, which died of pericarditis. The serous surfaces are thickly covered with rough, granulated, or flocculent coagulated lymph, in the form of laminæ, nodules, and bands stretching across the cavity of the pericardium. The membrane itself is also considerably thickened, and opaque. The valves and interior of the heart were normal.

Presented by F. T. Buckland, Esq., Sept. 21, 1858.

Series V.—MORTIFICATION.

136 A. A portion of integument from the upper arm, burnt by the explosion of some barrels of gunpowder in the year 1820. It was found about a quarter of a mile from the spot where the accident occurred. The outer surface of the skin seems to have suffered less than the internal, which is of an intensely black colour.

Presented by Sir Stephen L. Hammick.

Series VI.—TUMOURS AND OTHER ALLIED MORBID GROWTHS.

179 A. A cyst of irregularly spheroidal form, between three and four inches in diameter, removed from the left side of a woman's neck. The walls are thin, and at the most prominent part adherent to the skin. It is entirely filled by a solid, homogeneous, non-laminated, unorganized, pale-brown mass resembling in appearance coagulated albumen or fibrin and but loosely connected with the cyst-wall.

From a woman 53 years of age. The tumour was first observed over the parotid gland, twenty years before the time of its removal. It was situated immediately beneath the platysma, but was found to extend deeply behind the ascending ramus of the lower jaw, at which point was its firmest attachment. During the operation, the temporal artery was wounded at its origin, and it became necessary to ligature the common carotid. The patient recovered.

Presented by S. F. Statham, Esq., June 1851.

186 A. A fatty tumour, of discoidal form, lobulated at the edges.

Presented by Henry Smith, Esq.

186 B. A deeply lobulated fatty tumour.

Presented by Sir Stephen L. Hammick.

186 c. A large fatty tumour, deeply divided into lobes.

Presented by Sir Stephen L. Hammick.

191 a. A globular fatty tumour, about the size of an orange, which formed a projection beneath the skin above the breast. The integument over the most prominent part of the tumour appears tense, and has ulcerated over a space about the size of a shilling.

Presented by John Hilton, Esq.

206 a. A portion of a left lung, containing very numerous cylindriform, or nearly spherical, lobed and nodular masses of cartilage varying from less than a line to an inch and a half in diameter. They are imbedded in healthy pulmonary structure, from which, though closely connected, they can be easily and almost cleanly shelled out. Each separate nodule is composed of a varying number of smaller tortuous or cylindriform masses of pure hyaline cartilage, held together, yet distinctly marked off from each other, by an opaque, white, fibrous capsule.

No. 1789 a is the remainder of the same lung. A detailed and illustrated report of the case, by the donor (from which the following account has been abstracted), is published in the 'Medico-Chirurgical Transactions,' vol. xxxviii. 1855, p. 247. A labouring man, 37 years of age, was admitted into St. Bartholomew's Hospital on the 5th of January 1855. He was of temperate habits, and the father of several children. His only complaint was of a large roundly oval, lowly tuberous, perfectly defined, hard swelling of the right testicle, which had been two years in growth. The enlargement and hardness extended up the spermatic cord as high as the external inguinal ring. The whole of the diseased parts were removed, and proved to consist of masses of cartilage, occupying the place of the testicle, and filling and distending the lymphatic vessels of the cord. The patient recovered rapidly after the operation, and left the hospital in the beginning of April, weakened but apparently free from disease. He soon, however, returned, having become thinner and more feeble, scarcely able to walk, breathing rapidly and lightly, and panting on the least exertion. He died on the 1st of May, having shown no symptoms of organic disease except in the lungs. On post-mortem examination it was found that, from the uppermost part of the scar of the operation-wound, two dilated and tortuous lymphatic vessels passed upwards and backwards with the spermatic blood-vessels. They were filled with growths like those in the lymphatics of the spermatic cord, which greatly enlarged them and adhered to their walls. At their upper part they became connected with a swelling, of the size and shape of a hen's egg, which, on section, presented numerous cavities filled with pellucid fluid, and partitioned by fibrous and cartilaginous textures. Both this swelling (which was probably formed by a diseased lymphatic

gland) and the lymphatics connected with its exterior adhered closely to the front of the lower part of the vena cava inferior, and reached nearly to the origins of the renal veins. Beyond this point no affection of the lymphatic system could be traced. The lymphatic duct was healthy, and so were even the lymphatic glands of the lungs. But where the lymphatics above described adhered to the vena cava inferior, a cartilaginous growth projected from one of them into the cavity of the vein. The growth was branched, like a stunted, leafless shrub, about two-thirds of an inch high. The coats of the vein were reflected on its narrow base, but, gradually thinning, were lost on many of its branches, which thus appeared bare, and in direct contact with the venous blood. Except in being reflected on the growth, the coats of the vein had undergone no change. A small, tuft-like, isolated growth of cartilage was attached to the inner coat of the vein, near the origin of one of the renal veins, and a smaller one, scarcely more than a filament, lower down; but, with these exceptions, all the rest of the vena cava inferior, as well as all the other veins that were examined, appeared healthy alike in structure and contents.

The only other evidently diseased parts were the lungs. Both of these were enlarged by the formation in them of masses of cartilage, in such abundance that the two lungs together weighed 11½ pounds. In many of the larger branches of the pulmonary artery, small shrub-like growths of cartilage, like that in the vena cava inferior, were attached to the lining membrane; but they appeared to have sprung from the membrane, or to have grown on it, not (as in the case of the vein) to have been protruded through it. The abundance of the cartilaginous nodular growths made it difficult to trace the smaller branches of the pulmonary artery; but many of the growths were found to be arranged in clusters, corresponding with branches of the artery, and connected by short portions of the branches, collapsed and empty, between portions dilated by the growths within them. Moreover, in some instances the walls of small arteries could be distinctly traced, stretched over masses of cartilage.

No similar growths were found in the pulmonary veins, or in the costal pleura, or in any other part of the body, the morbid structures being thus limited to the right testicle, its lymphatics, the vena cava inferior, and the branches of the pulmonary artery.

Presented by James Paget, Esq.

220 A. Section of a large lobulated fibrous tumour, involving the lower third of the femur. It surrounds the bone on all sides, and occupies a portion of the medullary cavity, the shaft being completely destroyed for a space of several inches. The articular surface, however, remains entire. The growth was of almost cartilaginous hardness, but its section presents the characteristic appearance of the fibrous tumour. The periosteum covering the bone was directly continuous with the investing capsule of the tumour.

The tumour was of five years' growth.

Presented by Edward Stanley, Esq.

221 A. The half of a tumour from the stomach of a Cod-fish, apparently originating in the submucous areolar tissue. Its section shows a homogeneous basis of a pale grey colour, intersected in various directions by curving bundles of white, glistening, fibrous tissue.

No. 1159 A is the other half of the tumour.

221 B. A cluster of tumours, mostly globular in form, varying in size up to that of an orange, growing in or beneath the mucous membrane lining the stomach of an Ox, and projecting into the cavity. On section, they present an uniform greyish white colour, with numerous paler, waving, fibrous bands intersecting each other, much as those seen in the characteristic fibrous tumours of the uterus, from which they only differ in being somewhat less firm in consistence. Microscopically they only show the elements of connective tissue.

231 A. Section of a leg, with a large oval ulcer on the outer side, the surface and edges of which present the usual tuberculated appearance of epithelial cancer.

From a man aged 76, who died suddenly of heart-disease. The ulcer had existed many years in a simple form, and had begun to assume a malignant character about a twelvemonth before the patient's decease.

Presented by T. B. Curling, Esq., November 1850.

231 B. Section of the lower part of a leg. Above the outer ankle is a large ulcerated surface, presenting the characters of epithelial cancer. The new growth is more abundant about the central parts of the ulcer than at the edges.

From a man 60 years of age. The ulcer was of long standing, and finally necessitated amputation of the limb.

Presented by T. B. Curling, Esq.

254 A. Portion of a liver, containing numerous large soft medullary tumours. The entire organ weighed ten pounds and three quarters.

From a married lady, 53 years of age. Similar tumours had formed in the adipose tissue distributed over various parts of the trunk and extremities, especially the left arm, both forearms, and the left thigh. None of the other abdominal viscera were affected. For further details of the case, see No. 1404 A.

Presented by Jonas H. Pope, Esq.

254 B. Section of a liver, containing numerous medullary tumours, of various sizes, imbedded in its substance. The specimen is injected, and shows well the vascularity of the hepatic tissue as contrasted with that of the tumours.

Presented by Dr. Goodfellow.

254 C. Portion of a lung, with numerous small spheroidal cancerous tumours. Some are completely imbedded in the pulmonary tissue; but the greater number, commencing immediately beneath the pleura, seem to have increased in growth towards the surface of the lung, and form nodular projections, in some instances almost pedunculated.

From a man, who died at the age of 19, in St. George's Hospital, with an enormous cancerous tumour involving the left femur and ilium. For the details of the case, see No. 837 B.

Presented by Cæsar H. Hawkins, Esq.

262 A. The inner half of a left foot, between the bony arch of which and the plantar fascia has grown a tumour which, extending inwards and slightly upwards, protrudes through the skin as a large nodulated mass with an ulcerated surface, a little below and anterior to the inner ankle. The calcaneum, scaphoid and cuneiform bones are partially destroyed by the growth of the tumour, which appears to be of a medullary character. Its section presents two different portions, distinctly marked off from each other, the posterior and inferior part being of a soft, homogeneous, brain-like substance, and the anterior and superior more fibrous in texture.

262 B. The remaining portion of the tumour, which projected towards the outside of the foot.

Presented by William Thomas, Esq.

293 A. Portion of an alveolar or colloid tumour developed in a breast. The section shows the substance of the growth to be divided into oval and spherical loculi of various sizes, by bands of opaque, tough, yellowish, fibroid tissue. These spaces are filled with a soft, white, semitransparent, gelatinous material.

A portion of the specimen, in which the contents of the loculi are removed, showing only the fibrous stroma, is suspended in the lower part of the bottle.

Presented by —— Howitt, Esq.

299 B. A group of about ten tumours, of spheroid and ovoid form, removed from the upper part of the left side of the neck of a girl, 16 years of age. On section, they appear to be composed of a homogeneous soft substance, of a pale cream-colour, intersected by a few fibrous bands, and enveloped in a delicate fibrous vascular capsule. They probably consist of lymphatic glands, enlarged by the infiltration of their tissues with fibrinous or tuberculous (?) material.

The tumours had been observed to grow for two years. After the operation for their removal, the patient recovered rapidly.

Presented by John Hilton, Esq.

Series IX.—INJURIES AND DISEASES OF TENDONS.

363 A. The bones and ligaments of a right shoulder-joint. The intracapsular portion of the long tendon of the biceps is ruptured or otherwise destroyed, and the lower portion is adherent to the capsule of the joint and the bicipital groove. The head of the humerus was lying in contact with the under surface of the acromion-process of the scapula, which appears to have been fractured about an inch from its extremity, and to have been united by ligament. The articular cartilage of the humerus and scapula is slightly roughened on the surface, and the synovial membrane is thickened. The bone also appears enlarged and nodular in the neighbourhood of the lesser tuberosity.

This and the two following preparations were presented as illustrations of the effects of accidental rupture of the long tendon of the biceps. The history of the patient during life was unknown, and it is not improbable that all the changes may be due to chronic morbid action in the joint.

Accompanying the Jacksonian Prize Essay for 1846, *by T. Callaway, Esq.*

363 B. The bones and ligaments of a right shoulder-joint, exhibiting similar changes. The extremity of the upper portion of the biceps tendon is fringed and flocculent. The lower portion of the tendon has been cut away. The capsule is much thickened. The acromion-process is absent.

363 c. "Head of the humerus, altered by pressure against the under surface of the acromion; the shell of the bone on one side has passed upwards into the cancellated structure. It was taken from a case of ruptured tendon of the biceps."

363 d. A longitudinal section of a portion of the tendo Achillis, with a firm, flattened, nodular tumour developed upon, and closely adhering to, its surface, consisting of cartilaginous tissue, the deeper portions of which have undergone ossification. None of the fibres of the tendon can be traced over the surface of the tumour.

From the leg of an otherwise healthy person. The disease commenced twelve months before the operation, the principal growth having taken place during the last three months.

363 e. The other section of the same tumour.

Presented by R. W. Tamplin, Esq.

Series X.—DISEASES OF BURSÆ.

367 a. The upper end of the left radius of a woman aged 36. The bursa beneath the tendon of the biceps is enlarged, and the tubercle is expanded, flattened, and nodulated at the edges.

From a dissection subject, April 15, 1862.

Series XII.—INJURIES AND DISEASES OF BONES.

397 a. Two sections of the walls of a cranium, greatly thickened and generally of a porous texture, though in some places dense, as if from a process of induration like that shown in No. 396.

From the same specimen as No. 2858 a.

457 A. The lower portions of a right tibia and fibula, with the astragalus. A severe compound fracture has taken place about two inches above the malleoli. The bones have united, but the lower fragment of the tibia in a very distorted position, having been driven upwards and forwards. A large portion of the cancellous tissue of this bone has suffered necrosis, and is seen in the preparation partially imbedded in the new bone which has been thrown out around the fractured surfaces.

This specimen is figured in Sir Astley Cooper's 'Treatise on Dislocations and Fractures of the Joints,' edit. 1842, p. 307.

Presented by Sir Stephen L. Hammick.

459 A. A leg and foot, in which the tibia and fibula appear to have sustained a fracture in the lower third, and to have united in a very remarkable position. The lower fragments are turned backwards and upwards at an acute angle with the others, so that the heel is brought into proximity with the middle of the calf of the leg. The inferior end of the upper fragment of the tibia forms a strongly marked projection in front of the dorsum of the foot; it is somewhat enlarged and smoothly rounded, and was covered by a dense skin, like that of a stump. The bones of the lower fragments and of the foot are very soft and oily, while the upper part of the tibia retains its natural texture. The muscles of the back and inner side of the leg are in an advanced state of fatty degeneration; those of the outer side and sole of the foot, though small and pale, have preserved more of their normal structure.

470 A. The middle third of a femur, fractured obliquely. The fragments overlap, and a considerable interspace exists between the ununited ends. Lymph is effused around the fractured surfaces, and a fibrinous deposit forms a kind of capsular ligament around the whole.

From a woman 76 years of age. The fracture occurred on rising from the bed, to which she had been confined for several months by internal disease. Death is stated to have taken place one month afterwards.

Presented by M. B. Garrett, Esq.

472 A. The upper half of a right humerus, into which a musket-ball had entered a little above the middle and passed upwards, causing fracture of the bone,

and subsequent inflammation and necrosis of a considerable portion of the shaft. The sequestrum has come away, leaving an imperfect shell of new bone connecting the head and greater tuberosity with the lower part of the shaft.

The injury was received in Portugal, and the arm was amputated eleven months afterwards. The patient recovered in two months.

Presented by Sir Stephen L. Hammick.

472 B. The upper half of a humerus, exhibiting necrosis of the shaft and head, in consequence of a musket-ball wound. New bone has been thrown out around the upper part of the shaft. The head has become separate in the process of maceration.

The patient recovered after amputation at the shoulder-joint.

Presented by Sir Stephen L. Hammick.

474 A. The lower half of a right femur, in which is a longitudinal fracture, extending from between the condyles upwards and obliquely outwards for about seven inches. In the middle of this, on the anterior surface, a bullet, much flattened and altered in shape, is lodged in a cavity in the bone. There is partial union by the growth of new bone along the line of fracture; and a thin layer of the same covers the neighbouring surface.

The injury was occasioned by a grape-shot at the battle of Corunna; and the limb was amputated nine month afterwards, in the Naval Hospital at Plymouth. The patient quickly recovered.

Presented by Sir Stephen L. Hammick.

479 A. The upper part of a tibia, exhibiting necrosis of the cancellous tissue, occasioned by a pistol-ball passing through the bone from behind forwards.

The injury was received while the man was in the act of boarding a vessel. Little hæmorrhage occurred at the time. Subsequently profuse suppuration was set up, which, after the lapse of six months, necessitated amputation to save the patient's life.

Presented by Sir Stephen L. Hammick.

479 B. The lower fragment of a tibia which has been fractured by a musket-ball. Near the seat of injury, the surface is coated by a thin layer of new bone.

An opening which has been made near the lower end of the shaft shows that the cancellous tissue in the interior has suffered necrosis, and is partially separated from the outer wall.

Presented by Sir Stephen L. Hammick.

479 c. The lower part of a sacrum, which has been perforated by a musket-ball. The track of the ball is marked by a circular canal, commencing on the posterior surface, a little to the right of the third posterior sacral foramen, and passing forwards, inwards, and slightly upwards to the body of the third sacral vertebra. Necrosis of the cancellous tissue has taken place, and new bone has been thrown out upon the anterior surface of the bone.

From a seaman who was shot whilst stooping to reach a cutlass, being engaged in boarding a vessel. After receiving the injury, he lay for more than five hours in the bottom of the boat. Upon returning to his own ship, he was able, with assistance, to go up its side. Afterwards violent inflammation of the parts surrounding the seat of injury took place, and great prostration of strength, followed in a fortnight by a thin, offensive discharge from the wound, coloured as if mixed with fæcal matter. In about five months the ball was voided by the rectum; the pain abated, and he appeared to gain strength. After the fourteenth month the stools passed by the wound in the sacrum; and, daily becoming weaker, he died in the nineteenth month. Whilst in the hospital, he frequently got up and sat by the fire, having perfect use of the lower extremities, though the fæces and urine generally came away involuntarily.

Presented by Sir Stephen L. Hammick.

493 A. A right clavicle which has received a comminuted fracture near the middle. There is considerable overlapping of the fragments, the outer one being placed below the inner. A splinter, nearly an inch in length, projects forwards at a right angle to the axis of the bone. The fragments are united, but not very firmly, by recently deposited osseous matter.

Presented by Sir Stephen L. Hammick.

494 A. The upper half of a left humerus, exhibiting a longitudinal fracture, extending through the head and upper third of the shaft. The great tuberosity and adjoining portion of the shaft has also been completely detached.

From a man who died from severe injuries received in a fall, which he survived but a few hours.

Presented by Sir Stephen L. Hammick.

517 A. The upper end of a right femur, with part of the pelvis, from a woman eighty years of age. A fracture has taken place across the neck of the femur, and a false joint has formed between the broken surfaces. The true neck of the bone has entirely disappeared, the upper fragment including only the head, and the lower terminating just above the trochanters. The articular cartilage covering the head of the femur, and that lining the cavity of the acetabulum, is almost entirely absorbed, and its place is supplied by a fibro-cartilaginous tissue, forming white nodules and bands stretching across the articular cavity, the commencement, apparently, of a fibrous anchylosis between the contiguous surfaces. The ligamentum teres is absorbed. The two opposed fractured surfaces are covered with a similar fibro-cartilaginous substance; and the inner surface of the thick capsule of the new joint is beset with bands and fimbriated and claviform growths. Nodules of new bone have been thrown out around the margin of the inferior surface of the new articulation, especially in the neighbourhood of the lesser trochanter. A horizontal section has been made through the head of the femur and the acetabulum.

Presented by W. Pretty, Esq., February 1854.

530 B. The anterior section of a left femur, which has been fractured obliquely below the trochanters. The lower portion has been drawn upwards and inwards, and the fractured ends are surrounded by dense bone. On the inner side of the neck is a large oval cavity, produced partly by absorption of the cancellous tissue, and partly by expansion of the outer wall, and with a smooth internal surface, as if resulting from the growth of a cyst.

Presented by James Paget, Esq.

531 A. The lower half of a left femur, which has been fractured obliquely through the inferior third. There is an interval of nearly an inch between the fragments, the lower one being drawn upwards and outwards. Union has taken place through the medium of a considerable mass of sponge-like bone.

Presented by Sir Stephen L. Hammick.

536 A. A patella which has been fractured transversely near its middle. The frag-

ments are separated to a distance of two inches; and some nodular masses of bone have been developed in the ligamentous structure which connects them, close to the fractured edges.

Presented by R. R. Robinson, Esq.

554 A. The humerus of a youth, sixteen years of age, which had been fractured near the middle of the shaft seven or eight months before death, and had apparently united; but in the process of maceration the two portions have become separate. The effects of inflammation are seen in the deposit of a delicate layer of new bone upon the greater part of the surface of the shaft, but in largest quantity near the seat of fracture.

Presented by Sir Stephen L. Hammick.

557 A. The end of a femur after amputation. Several inches of the shaft have suffered necrosis, including the whole thickness of the last inch, but only the inner portion of the remainder, which is separated from, but encased in, the outer layer of the shaft. Upon the surface of this ensheathing portion of living bone much new osseous tissue of a light porous texture has been thrown out, being especially abundant around the margins of two large apertures or cloacæ.

From a scrofulous girl, 14 years of age, whose thigh was amputated on account of disease in the knee-joint. After the operation, the edges of the wound did not unite, the integuments sloughed, the bone became exposed, and necrosis took place, followed by death.

Presented by Sir Stephen L. Hammick.

557 B. The upper portion of a right femur, two years after amputation of the lower third. Inflammation has taken place, resulting in necrosis involving nearly the whole shaft, to a length of about eight inches, and the sequestrum has become completely detached, but remains in its place in the preparation. The section which has been made displays well the texture of the new bone composing the sheath formed around the dead portion. The inner surface is finely cancellated; the outer covered with tuberosities, generally broad and flattened, but in some parts lamelliform. There are numerous cloacal apertures.

Presented by Sir Stephen L. Hammick.

557 c. Part of the femur of a lad aged 18, a year and a half after amputation. Inflammation has taken place in the shaft; portions of the cancellous tissue have suffered necrosis; and the outer surface, for a distance of five inches from the extremity, is surrounded by a growth of new bone in the form of nodules of various shapes and sizes, the exterior of which is composed of a thin layer of smooth bone, full of minute perforations, and the interior of fine cancellous tissue.

Presented by Sir Stephen L. Hammick.

585 a. Portion of the tibia of a young person said to have had a "scrofulous tumour" (ulcer?) on the leg. A delicate stratum of finely porous new bone covers the greater part of the surface, but is most abundant upon and around the margins of an oval space which probably corresponded with the ulcer.

Presented by Sir Stephen L. Hammick.

590 a. A portion of a tibia which, in consequence of an ulcer of the integument, has suffered inflammation leading to the deposit of new bone. At the base of the ulcer, not only is this deposit wanting, but the original surface of the shaft has been removed. Around the margin of the ulcer the new bone is abundant and nodular; but as the distance from the seat of the disease increases, it becomes thin, and is longitudinally grooved.

Presented by Sir Stephen L. Hammick

590 b. A right tibia, wanting the upper end, from a person who suffered from an extensive foul ulcer of the leg. On a great part of the surface, a thin layer of new bone has been deposited; but over a large oval space on the inner side, this appears to have been removed by ulceration, together with considerable portions of the surface of the original bone, leaving the cancellous tissue exposed. Near the upper part of the specimen is a cloacal aperture, leading to a sequestrum in the interior.

Presented by Sir Stephen L. Hammick.

590 c. The shaft of a tibia, upon which a large quantity of new bone has been thrown out. On one side, this is nodular in form, and has a smooth surface dotted

with minute pores. On the other side, the external portion has been removed by ulceration, so as to leave exposed the finely reticulated internal structure of the new bone. At one part the ulceration has advanced so deeply as to destroy the wall of the shaft for a space two inches in length and half an inch in breadth, leaving bare the cancellous tissue of the medullary cavity.

From a person whose limb was amputated two years after the commencement of an extensive and deep ulceration of the integuments, of supposed syphilitic origin.

Presented by Sir Stephen L. Hammick.

590 D. A tibia wanting the lower end. The head and large portions of the shaft are necrosed and are covered by a thick layer of new bone, which itself appears to have suffered in many places from deep and irregular ulceration.

Presented by Sir Stephen L. Hammick.

591 A. A right tibia, the greater part of the shaft of which has suffered necrosis, in consequence of inflammation following a severe injury to the soft tissues of the leg. The sequestrum, which is not yet completely detached, includes the anterior portion of the middle three-fourths of the shaft. It is encased in a sheath of new bone, of rather dense texture. In the upper part of this sheath are numerous round cloacæ; and lower down, one of oval form and three inches in length leaves exposed a part of the sequestrum where the surface is covered by a fine layer of longitudinally grooved new bone, which has suffered necrosis, together with the portion of the shaft on which it was deposited.

The limb was amputated sixteen months after the accident.

Presented by Sir Stephen L. Hammick.

605 A. Portion of a calvarium. On the left side of the frontal bone the inner table is destroyed for a space about an inch and a half long and one inch broad, in consequence of the formation of an abscess following an injury. At two spots in the anterior portion of the affected part, complete perforation of the cranial walls has taken place. The larger of the two openings is somewhat circular in form, and nearly half an inch in diameter.

From a young seaman, who, falling into the hold of a ship, received a concussion of the brain, and remained insensible for sixteen hours. After recovering the shock, he had the usual

inflammatory symptoms consequent upon such an injury. These appeared to yield to severe depletions, and he was able to return to his duty, though never feeling quite well. About five months from the accident he became gradually sluggish, had violent headaches, dilated pupils, occasional sickness, with irregularity of bowels, appetite, and pulse; was very irritable and quarrelsome (contrary to his natural disposition), and frequently comatose, though readily roused. A small tumour soon appeared on the left side of the forehead, which quickly became painful, and evidently contained fluid. The other symptoms grew worse; urine and fæces passed involuntarily; delirium and severe rigors, followed by epileptic fits, came on; and he sank, exhausted, nine months from the time of meeting with the accident.

On dissection, the tumour, which was of the size of a small walnut, was found to contain pus, and to communicate through the opening in the skull-wall with an abscess within. The brain-substance around this was condensed, and the surrounding dura mater firmly adherent to the bone, so as to limit the extension of the pus internally.

Presented by Sir Stephen L. Hammick.

560 B. A portion of an occipital bone, in which ulceration of the inner table, resulting in complete perforation, is said to have followed upon an injury. It is not improbable that the injury may have been a punctured fracture.

From a seaman who, while drunk, fell against a door-scraper. An apparently slight wound of the scalp was the result, with but little hæmorrhage. In consequence of his having been drunk, and the injury being considered of a trifling nature, the surgeon was not informed of it. The next day he did his work as usual, and was tolerably well, only feeling a little pain in the head. During the succeeding week he was several times intoxicated; and about fourteen days after the accident he became unable to go on with his duty, having increased pain in the head, shiverings, drowsiness, and nausea, general debility and feeble pulse. The external wound had healed. He now came under medical treatment, but gradually became worse; and on the twenty-third day he was found in his hammock insensible, and died a few hours after.

Presented by Sir Stephen L. Hammick.

607 A. A right patella (from a man aged 23), in which nearly the whole of the articular surface has been evenly removed by ulceration, in consequence of disease within the knee-joint. A large deposit of new bone has taken place upon the external surface, in the form of vertically disposed ridges, ending below in sharp spicules. Externally these are hard and smooth, but composed of cancellous structure within. A small piece from the outer side of the bone appears to have been fractured and reunited, as it is marked off from the rest by a vertical fissure. These changes were attributed to severe inflammation, resulting in abscesses over the bone, following a fall.

Presented by Sir Stephen L. Hammick.

622 A. Section of the foot of a young person affected with scrofulous ulceration of the tarsal bones. The principal seat of the disease is in the contiguous articular surfaces of the astragalus, calcaneum, and scaphoid, from which the cartilages are in great part removed. From the interior of the diseased joints several sinuses (indicated by blue glass rods) lead to various parts of the surface of the foot. The largest of these, directly over the instep, is surrounded by a prominent mass of fungous granulations.

From a female, 25 years of age, of strumous diathesis. She had suffered from abscesses in the neck, disease of the right sterno-clavicular articulation, and indications of phthisis. The disease in the foot was attributed to the fall of a 28lb. weight upon the instep, two years before her admission into the hospital; but, although from the time of the accident she suffered occasional pain in the part, it was not until more than a year after, that abscesses began to form in connexion with the joint. In consequence of the exhausting discharge seriously affecting her general health, amputation was performed at the lower third of the leg, and the patient made a good recovery.

Presented by John Hilton, Esq.

631 A. The upper part of a tibia, of which a large portion has been destroyed by deep and irregular ulceration, supposed to be of syphilitic origin. New bone has been very sparingly deposited around the margin of the ulcer.

Presented by Sir Stephen L. Hammick.

668 A. A left tibia, of which the whole of the shaft has suffered necrosis. The surface has a rough, worm-eaten appearance. In some parts it has been coated with new bone. The groove or commencing line of separation between the dead and living bone is well marked at the lower end, about an inch and a half above the articular surface. No such line has yet been formed at the upper end.

From a man who, in consequence of a blow, suffered from inflammation of the leg, resulting in numerous profusely discharging ulcers, and necessitating amputation eleven months after the receipt of the injury.

Presented by Sir Stephen L. Hammick.

716 A. A large portion of a parietal bone, which exfoliated after an injury. It consists chiefly of the outer, but in some parts of the inner table also. The diploë has been to a great extent destroyed.

From a seaman on board the 'Terrible.' The wound was slight, but it took on a sloughing action. Most of the wounds on board this vessel at the time partook of the same character. One man lost part of his nose from a slight scratch; and two lost their arms in consequence of the punctures made in venesection. In several instances the result was fatal.

Presented by Sir Stephen L. Hammick.

738 A. The lower two-thirds of the right femur of a young person, wanting the epiphysis. Nearly the whole of the shaft has suffered necrosis. The groove which separates the dead from the living portion of bone is very distinct; the surface of the former is much eroded, especially towards the upper end of the specimen. It is in most places surrounded by a thin shell of new bone.

Presented by Sir Stephen L. Hammick.

743 A A left tibia, with the fibula and part of the astragalus. Nearly the whole of the shaft of the former bone, including the inferior articular extremity, has suffered necrosis, and has become detached from the living portion. It is partially encased in a thick sheath of new bone, of light spongy texture. The astragalus and both ends of the fibula bear evidence of having suffered from inflammatory action.

Presented by Sir Stephen L. Hammick.

743 B. A right tibia and fibula. The entire shaft of the tibia has suffered necrosis, in consequence of a severe blow terminating in extensive ulceration of the integuments. Its surface is rough and eroded. Abundant new bone, of nodulated exterior and very spongy texture, has been thrown out around it, forming an incomplete sheath extending from one articular extremity to the other. Some nodules of new bone have also been thrown out from the contiguous surface of the fibula.

Presented by Sir Stephen L. Hammick.

743 C. A left tibia and fibula. Nearly the entire shaft of the tibia has suffered necrosis. The dead portion is now divided into two sequestra, which are embraced by a thick sheath of new bone, continuous along the posterior aspect, but having large openings in front. New bone, mostly of a scaly character, has been thrown out on the surface of the fibula.

The disease arose from a slight injury to the skin, which caused inflammation of the whole leg, followed by abscesses. Amputation was performed eighteen months after the receipt of the injury.

Presented by Sir Stephen L. Hammick.

743 D. A right tibia, the entire shaft of which has suffered necrosis. The sheath of new bone which has been thrown out around it is thick posteriorly, but deficient in front and at the sides.

Presented by Sir Stephen L. Hammick.

743 E. A left tibia and fibula. A considerable portion, if not all, of the former has suffered necrosis. There are now two large, irregular, deeply eroded sequestra, partially imbedded in the new shaft, composed of finely cancellated osseous tissues. Some new bone has also been thrown out upon the surface of the fibula, by which it is united at two points to the tibia.

Presented by Sir Stephen L. Hammick.

743 F. A left tibia, various portions of the shaft of which have suffered necrosis, and are partially detached from the living bone. Upon the surface of the latter much new bone has been deposited, which in many places projects over, and partially encases, the dead portions of the shaft.

Presented by Sir Stephen L. Hammick.

743 G. A portion of a right tibia, of which the lower half of the shaft has suffered necrosis. The thick, nodulated case of new bone which has formed around the sequestrum is deficient upon the inner side.

From a seaman, the skin of whose leg was rubbed by a cable. Sloughing ulceration was the consequence; and this continued for two years, the ulcers occasionally putting out feeble granulations and then sloughing again. Amputation was performed.

Presented by Sir Stephen L. Hammick.

743 H. A right tibia, which appears to have suffered from long-continued inflammation. The whole of the surface is covered with a layer of finely porous new bone, most abundant and dense upon the posterior aspect. A considerable portion of the shaft is necrosed, the much eroded sequestrum being exposed

at a large oval aperture on the inner side of the casing of new bone. The edges of this aperture and the surface of the neighbouring new bone appear to have been removed by ulceration.

The disease commenced in an ulcer upon the inner side of the leg. As this continued to increase for three years, and resulted in necrosis, amputation was performed.

Presented by Sir Stephen L. Hammick.

743 I. A left tibia, in which necrosis of the entire shaft has taken place. A complete case of new bone has formed around it, connecting the two articular extremities, which are not involved in the disease. On the anterior and inner side of this case are numerous cloacæ, through which the sequestrum is seen. The surface of the latter is deeply eroded.

Presented by Sir Stephen L. Hammick.

743 K. A tibia of which nearly the whole shaft has suffered necrosis. It is enclosed in a thick case of new bone, most abundant on the posterior aspect. In this there are numerous circular cloacæ, those on the anterior surface having coalesced into two long, irregular openings. The sequestrum has been perforated by a trephine, apparently in an unsuccessful attempt to remove it.

The disease arose from a slight injury, two years after which the limb was amputated. The patient quickly recovered.

Presented by Sir Stephen L. Hammick.

743 L. A left tibia and fibula. A considerable portion of the shaft of the tibia has suffered necrosis, and is completely encased in new bone. Portions of the sequestrum appear to have been discharged, and those that remain are greatly eroded, and the spaces they occupied are being filled up by the growth of new bone. The surface of the latter is more dense and smooth than in the preceding specimens, and it altogether appears to indicate a more advanced stage of the process by which the destructive effects of necrosis are repaired.

The shaft of the fibula has been inflamed, and is covered with new bone. Near the lower end there is a cavity, from which a portion of necrosed bone has probably been discharged.

Presented by Sir Stephen L. Hammick.

743 M. A section of a tibia, of which a portion of the middle of the shaft has suffered necrosis. The sequestrum is completely separated, and part of it has escaped; but part is still retained in its place by the case of new bone, which has been very abundantly thrown out around it. This, though appearing light, porous, and friable on the surface, is very dense within, as seen in the section.

The inflammation of the bone was the result of a severe cut through the integuments of the anterior aspect of the leg, which ended in sloughing. The limb was subsequently amputated.

Presented by Sir Stephen L. Hammick.

755 B. Two portions of the anterior wall of a tibia, necrosed in consequence of a fracture.

From a labouring man, aged 51, admitted into the London Hospital, April 29th, 1850, with fracture of the middle of the left leg, and great bruising of the integuments, caused by the limb having been jammed between a mast and the side of a barge. After ten days the soft parts sloughed, leaving exposed the fractured ends of the tibia, denuded of periosteum and necrosed. Towards the latter part of August the limb became tolerably firm, from the union of the fractured fibula and the posterior part of the tibia. The necrosed portion of the upper fragment became loose, and was removed September 30th. The much smaller piece from the lower fragment did not separate until October 30, 1851, or eighteen months after the accident, the comparative slowness of the process in the latter case being attributed to the impaired state of nutrition, consequent on the supply of blood from the medullary artery being intercepted by the injury. (Transactions of the Pathological Society, vol. iii. p. 432.)

Presented by T. B. Curling, Esq.

758 A. The lower third of a fibula, about an inch of the shaft of which has suffered necrosis, and has come away. Much new bone, of a light, spongy texture, is thrown out from the adjacent living parts.

The disease was occasioned by a sloughing ulcer of the integuments, which followed a simple cut laying bare the fibula.

Presented by Sir Stephen L. Hammick.

761 A. An os calcis, of which a large portion of the posterior surface and contiguous cancellous tissue has suffered necrosis, and is partially separated. Much new bone has been thrown out around, especially on the under surface.

The person from whom it was taken trod upon a copper nail, which entered so deeply as to require some force to extract it. Violent inflammation succeeded. After eleven months suffering, the foot was amputated.

Presented by Sir Stephen L. Hammick.

773 A. The bones of a great toe, from the under surface of which a nodulated, spheroidal, enchondromatous tumour has grown. It is connected with the adjoining extremities of both phalanges, and is continuous with their cancellated interior, the compact surface-layer of bone being completely destroyed at the point of contact. The section of the growth is of a pale grey colour, composed of nodules of hyaline cartilage, with more opaque and fibrous interspaces, giving it a mottled appearance. In some parts the tissue has undergone degeneration, giving rise to large irregular cavities, the soft contents of which have escaped. The nail is much distorted in form.

From a man, 46 years of age. Amputation was performed, and the patient recovered.

Presented by Sir Stephen L. Hammick.

775 A. A section of a globular enchondromatous tumour, about three inches in diameter, growing from the second phalanx of a finger. It is surrounded by a thin capsule of bone, an expansion of the external wall of the phalanx. The interior is composed of rounded nodules of cartilage, with interspaces containing cancellous bone-tissue and medulla. A similar growth appears to have commenced in the ungual phalanx. The skin covering the surface of the tumour is extensively ulcerated.

The remainder of the hand, on which are many similar tumours, is in the Museum of St. Bartholomew's Hospital.

Presented by James Paget, Esq.

781 A. Portion of an enchondromatous tumour removed from the dorsal surface of the lower end of the radius of a lady aged 40.

The tumour was about the size of a small orange, and had been growing during fourteen years. It had always been painful, particularly after the hand had been much used and had become fatigued. It was somewhat nodulated on the surface, and of unequal hardness, its sides being evidently bony, while in the centre a certain degree of fluctuation could be distinguished, as if a fluid were confined within a strong membrane like parchment, pressure

producing a kind of crepitation. The following description was given by Mr. Quekett of the microscopic characters of the tumour:—"The growth was made up chiefly of cartilage-cells in a state of rapid development, being so far a true enchondroma; in some parts there existed a collection of peculiar compound cells, containing a large number of nucleated cells, many of them in a state of change, undergoing spontaneous division, the absorption of the cell-walls being also in progress. In some parts of the tumour the deposition of bone-corpuscles had commenced, and in others had gone on until considerable patches of ossification had been completed. This ossification had taken place in the walls of the compound cells, so that in many cases small cysts of true bone had been formed. These cysts or cavities contained a gelatiniform fluid, in which floated oval cells of large size, full of minute granules similar to those found in the thickened fluid of ovarian cysts and sometimes in the gelatinous fluid of inflamed bursæ."—'Medical Times and Gazette,' Feb. 28, 1852.

Presented by Bransby B. Cooper, Esq.

834 A. Section of a medullary tumour connected with the upper end of the fibula. The disease appears to have originated within the head of the bone, which is greatly expanded in all directions. Posteriorly it has destroyed and passed through the wall of the bone, and forms a large globular projection into the popliteal space, about four inches in diameter. It is invested by a thin fibrous capsule, apparently continuous with the periosteum. The surface is slightly nodulated. The section shows that the external portion of the tumour is formed of greyish, soft, brain-like matter, supported by a framework of osseous laminæ and spicules; this averages about an inch in thickness; within it, and also within the expanded head of the fibula, is a reddish-looking pulpy mass, apparently formed of broken-down cancerous matter, mixed with the fibrin and colouring-particles of effused blood. There is also a mass of soft medullary matter, with spicules of bone projecting into it, sprouting from the anterior wall of the head of the fibula; but this does not appear to communicate with the interior of the bone.

The contiguous vessels, nerves, and muscles are displaced and expanded by the tumour, but not otherwise injured. The tibia is healthy, except that, at the part of its head in contact with the tumour, some absorption of the surface has been produced by pressure.

From a female, aged 42, married, but childless, enjoying general good health, and with no hereditary disposition to malignant disease. Four years previous to the amputation she was

struck on the outer side of the knee, in a fall from a table. Slight swelling and some pain remained permanently in the part. During the last two months the swelling rapidly increased, and the pain became very violent, œdema of the leg came on, and the general health suffered much. To the touch the tumour was firm, but not hard; compressible, but not fluctuating. The hæmorrhage which resulted from a puncture made in it gave great relief.

The patient died from phlebitis, ten days after the amputation.

Presented by R. Partridge, Esq., Sept. 11, 1850.

835 A. The outer half of a clavicle, with the adjoining tissues, removed during life, on account of its being affected with medullary cancer. The acromial end of the bone, which is deeply and irregularly eroded on the surface, is imbedded in the growth. The large cicatrix of a former operation is visible on the skin.

From a girl, who, at the age of 13, accidentally struck her shoulder against the edge of a window-frame. The blow was not severe, and gave rise to but little uneasiness at the time. Two months afterwards a firm swelling began to show itself at the point where the shoulder was struck. This increased for twelve months, when it had attained the size of an orange. It was attended with pain, severe, but not constant. On the 21st October, 1851, the tumour was extirpated at Guy's Hospital, by Mr. Bransby Cooper. It was found to be firmly adherent to the clavicle, from which it was with some difficulty dissected off. It was now discovered that the bone had been broken. The wound healed, and the patient was discharged apparently cured; but, in six weeks from the time of the operation, there was evidence of renewed growth beneath the cicatrix; this increased rapidly till the 4th of January, 1852, when the second operation was performed, the tumour being entirely removed, together with the outer half of the clavicle. The wound healed favourably, but the subsequent history of the case is not recorded. "Under the microscope, the tumour presented all the appearances which are considered to indicate malignant disease." The case is recorded in full in the 'Medical Times and Gazette,' February 14th, 1852.

Presented by Bransby B. Cooper, Esq.

837 B. A large tumour surrounding the upper two-thirds of the femur, the hip-joint, and a large part of the dorsal surface of the ilium. It is 12 inches in length, and $7\frac{1}{2}$ in transverse diameter. The surface of the section which has been made of the tumour shows some indistinct fibrous partitions, crossing the otherwise nearly homogeneous mass. The external portion is tolerably firm and brain-like, whilst the centre is more soft, and in some parts broken down and shreddy. Spicules of bone are scattered irregularly through the sub-

stance of the tumour. Quite in the middle is a cyst, which, when recent, was filled with a transparent, viscid fluid.

From a man, aged 19, a servant. In August 1849 he felt a continued pain in the left hip and knee, followed in a few weeks by an enlargement below the trochanter, the tumour being at first round and hard. He continued to walk about until the early part of November, when the progress of the growth became more rapid. He was admitted into St. George's Hospital December 5th, at which time the tumour extended from the middle of the thigh to the pelvis, surrounding the joint, and projecting upwards on to the dorsum of the ilium. A few days after his admission, while moving in his bed, the femur gave way in the middle of the tumour, the fracture being accompanied by a "cracking" sensation and considerable pain: the limb now gradually became bent, with eversion of the foot. The tumour progressively increased till its circumference was 32 inches, whilst that of the opposite thigh was only 12 inches. The pain was excessive, the skin became extremely tender, and the superficial veins greatly enlarged and distended.

About the middle of May, a cough came on, and the expectorated mucus was once or twice tinged with blood; the patient, getting gradually weaker, died on the 2nd of June, 1850.

On post-mortem examination, each pleural cavity was found to contain about six ounces of serum, tinged with blood; both lungs were congested, and studded with numerous cancerous tubercles (see Preps. Nos. 254 c. and 1794 a.), rather more abundant in the right than the left lung. The heart was healthy, and there was no trace of disease in any of the abdominal or pelvic viscera, or in the absorbent glands of these parts. The tumour was attached to the whole of the external surface of the left os innominatum, from the upper part of the dorsum of the ilium to the rami of the pubis and ischium; and completely surrounding the hip-joint, it extended to the lower part of the middle third of the femur. Its surface was irregular and somewhat nodulated, and invested by a layer of condensed areolar tissue, beneath which in its outer and posterior aspects several broad plates of bone, ranging from one to two inches in diameter, were felt. The femur, which passed through the middle of the tumour, was extensively broken up into small fragments and spicules of bone, many of which had been carried outwards by excentric growth of the tumour and distributed through its substance. The muscles of the thigh were pale, and expanded over the surface of the tumour. A few cancerous tubercles were deposited in the substance of the vastus externus, one being as large as a chestnut; others, of smaller size, were situated below the upper part of the sartorius and the origin of the rectus. The branches of the anterior crural nerve were expanded and flattened, the veins greatly enlarged; the superficial femoral artery and vein were curved over the inner surface of the tumour, and the profunda artery and vein entered its substance. The os innominatum was softened and flexible; a few small tubercles were developed on the inside of the ilium, near the anterior inferior spinous process; and the obturator internus muscle was pushed upwards into the pelvis by the tumour, while the obturator nerve and vessels entered into its substance.

Presented by Cæsar H. Hawkins, Esq.

841 A. Section of a humerus, the upper fourth of the shaft of which has been destroyed by the growth of a tumour, apparently originating within the medullary cavity. A deposit of soft brain-like substance is seen for a short distance above and below the part where the walls are destroyed, not only in the cavity, but also between the bone and the periosteum. Little remains of the tumour but its expanded, globular, cyst-like wall, with a shreddy inner surface; the contents, which appear to have been of a pulpy consistence, have escaped.

From a young woman. The limb was amputated at the shoulder-joint.

Presented by Bransby B. Cooper, Esq.

841 B. The other half of the same humerus.

845 A. The distal ends of the shafts of the right radius and ulna of a woman. A tumour, about the size of an orange, surrounds the radius immediately above the wrist-joint. Its surface is slightly nodular, and grooved by the pressure of the tendons passing over it. It is encased by a firm fibrous membrane, apparently continuous with the periosteum. A section in the dorsal aspect shows the internal structure to be soft, homogeneous, and cheese-like. It contained much blood when first cut into. Near the upper part is a cavity about the size of a marble, produced probably by degeneration of the substance of the tumour.

Presented by Bransby B. Cooper, Esq.

Series XIII.—INJURIES AND DISEASES OF JOINTS.

Sub-Series I A.—*Artificial Distortions.*

The ten following preparations of the feet of Chinese women, showing the effects of compression applied at an early age, were made from four specimens presented to the College by Mrs. Stanley, widow of Dr. S. S. Stanley, R.N., and one presented by William Lockhart, Esq.

884 A. The left foot of a young Chinese female, in which the compressing process has been only partially carried out. The great toe is turned outwards; the others, especially the little toe, are doubled under the sole of the foot; the first and third, being pressed towards each other, meet beneath the second, which is consequently displaced upwards. There are two circular ulcers on the skin, perhaps the result of artificial pressure, one over the distal extremity of the fifth metatarsal bone, the other nearer the instep. As in most of the other specimens, the cuticle has been removed, probably by partial decomposition before they were preserved.

884 B. A right foot in a similar condition, and probably belonging to the same individual. There are numerous ulcers and cicatrices on the surface.

884 C. The left foot of a Chinese female in a more advanced condition of distortion. The toes are bent as in the preceding specimens, but in addition the point of the heel is brought downwards and forwards, so as greatly to increase the arch of the foot and prominence of the instep, while the length is much diminished. The skin is removed, and the muscles and tendons are dissected. These have their normal distribution, except that the extensor brevis digitorum sends an accessory slip to the little toe, and there is a small muscle, the origin of which in the back of the leg is lost, but which ends in a tendon, about an inch long, inserted into the under surface of the fibrous sheath which binds the tendon of the peroneus longus to the os calcis.

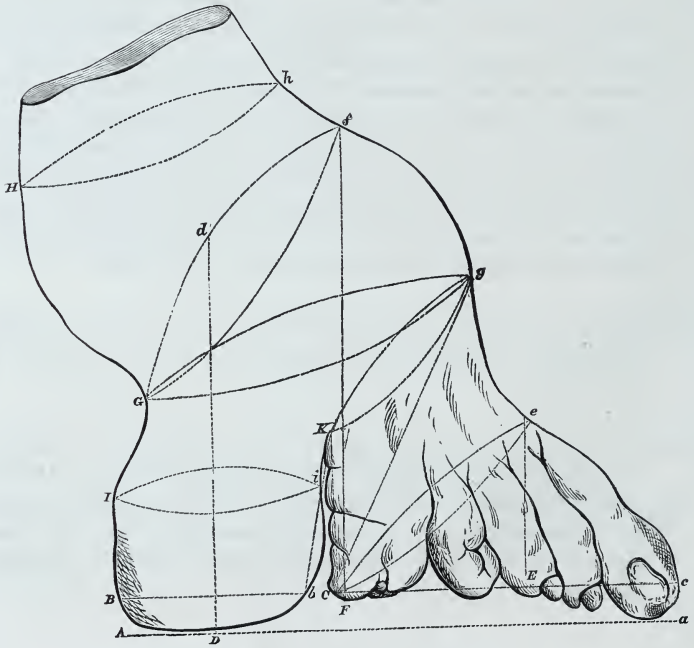
884 D. The skin, without the cuticle, from the above foot. It shows the general external form, especially the deep transverse cleft across the middle of the sole.

884 E. Part of the left foot of an adult Chinese female in a similar state of distortion. It has been roughly chopped off from the remainder of the limb, through the tarsal bones, which are much shattered. The skin and fleshy coverings of the metatarsal bones and phalanges have been dissected off. The integuments of the heel remain, including the cuticle, which is of considerable thickness.

884 F. 884 G. and 884 H. Three longitudinal vertical sections of a highly distorted right foot. The deformity is of the same nature as that shown in the preceding specimens, but carried to a greater degree. The foot is much shortened and bent upon itself, by an exaggeration of the natural arch. The heel and the distal ends of the metatarsal bones are brought as near together as possible, the lower tarsal bones being forced up, so as to make a considerable prominence on the instep. The outer toes are doubled under the sole. The great toe is comparatively little altered, its extremity being only directed to the middle line of the foot, to which it forms the pointed anterior termination. Although the tarsal bones are considerably changed in form and relative position, their structure, as well as that of the articular cartilages, appears healthy.

The dimensions of the foot, before it was dissected, were as follows :—

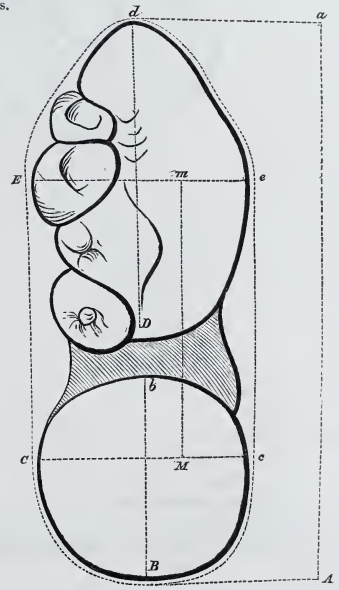
Fig. 1. Outline of the foot, from the outer side.



	inches.
A a. From the heel to the end of the great toe	$4\frac{1}{4}$
B b. From the heel to the deep plantar cleft	$1\frac{1}{4}$
C c. From the plantar cleft to end of great toe	$2\frac{3}{4}$
D d. From the sole of the foot to the outer ankle	3
E e. From the sole to the top of the metatarso-phalangeal articulation of the great toe	$2\frac{1}{4}$
K b. Height of the plantar cleft	$1\frac{1}{4}$
F f. From the sole of the foot to the outer border of the astragalo-tibial articulation	$3\frac{1}{2}$
C g. From the tip of the little toe to the tarso-metatarsal articulation of the second toe	3
C e. Circumference of the foot, from the tip of the little toe across the metatarso-phalangeal articulation	$5\frac{1}{2}$
K g. Circumference of the foot, from the bottom of the plantar cleft, across the tarso-metatarsal articulation	$6\frac{3}{4}$
G g. Circumference of the foot, at the posterior calcaneo-astragalar articulation and the tarso-metatarsal articulation	8
H h. Circumference of the foot, across the ankle-joint	$6\frac{1}{2}$
I i. Circumference of the heel	6

Fig. 2. Outline of the sole of the foot.

	inches.
A a. Length of the sole	$4\frac{1}{2}$
B b. Length of the heel	$1\frac{1}{4}$
C c. Width of the heel	$1\frac{1}{2}$
D d. Length of the anterior part of the foot	$2\frac{3}{4}$
E e. Greatest width of the foot, from the metatarso-phalangeal articulation of the great toe to the first phalangeal articulation of the third toe	$1\frac{3}{4}$
B C E d e c. Circumference of sole	10



The sections are carried through, 1, the outer ankle, bones of the tarsus, and between the fourth and fifth toes; 2, through the tibia, bones of the tarsus, and the phalanges of the great toe. No. 884 F is the outer portion of the foot; No. 884 G the middle portion; No. 884 H the inner portion. The relative position of the part exposed in the sections are exhibited in the accompanying diagrams.

Fig. 3 is from 884 G.

1. Tibia.
2. Fibula.
3. Astragalus.
4. Os cuboideum.
5. Os calcis.
6. Fourth metatarsal bone.
7. Tendo Achillis.
8. Tendon of the extensor digitorum longus muscle.
9. Extensor brevis digitorum muscle.
10. Insertion of the peroneus tertius.
11. Tendon of the peroneus longus.
12. Plantar fascia, with the flexor brevis digitorum.
13. Tarsal branches of the dorsal artery and vein of the foot.

Fig. 4 is from 884 H.

1. Tibia.
2. Astragalus.
3. Os scaphoideum.
4. Os calcis.
5. Mesocuneiform.
6. Entocuneiform.
7. First metatarsal bone.
8. Sesamoid bone.
9, 10. Phalanges of the great toe.
11. Tendon of the flexor longus digitorum.
12. Tendon of the flexor longus hallucis.
13. Tendon of the tibialis posticus.
14. Sheath of the flexor communis digitorum.
15. Plantar fascia.
16. Flexor brevis hallucis muscle.
17. Tendon of the tibialis anticus.
18. Posterior tibial vessels and nerves.
19. Digital artery.

884 I. Two portions of the skin from the heel of foot No. 884 E. The cuticle is upwards of an eighth of an inch in thickness, and much fissured.

884 K. The nails from the first and second toes of the same foot.

969 A. Section of the lower end of a tibia, and part of a foot, exhibiting complete osseous ankylosis between the tibia, astragalus, os calcis, and cuboid bones. The corresponding articular surfaces have been absorbed, and the dense outer wall and the internal cancellous structures are produced in continuity from one bone to the other, there being but little indication of their original individuality.

Presented by T. B. Curling, Esq.

969 B. The bones of an ankle-joint, including the lower extremity of the tibia and fibula, the astragalus, and the os calcis, in a complete state of osseous ankylosis, as in the preceding specimen. A considerable portion of the astragalus appears to have been absorbed.

Purchased, 1858.

Series XIV.—INJURIES AND DISEASES OF THE VERTEBRAL COLUMN.

982 A. The eleventh and twelfth dorsal and first lumbar vertebræ, in which certain changes have taken place in consequence of an injury received twenty-four years before the patient's death, the exact nature of which cannot now be satisfactorily made out. The greater part of the body of the last dorsal vertebra has been absorbed, and, by the inclination of the anterior part of its lower surface upwards, the space between the spines of this, and the vertebra next above, is greatly increased. Complete osseous ankylosis has taken place between the articular processes of these two vertebræ on both sides, and there has been a large deposition of new bone around the heads of the twelfth pair of ribs.

From a man aged 28, who was admitted into the Naval Hospital at Plymouth, July 24, 1798, in consequence of an injury to the dorsal region of the spine, received in a fall into the hold of a ship. There were no external signs of the injury; but he was completely

paralyzed both as to sensation and motion below the middle of the body. The urine and fæces passed involuntarily and continually. After remaining in the hospital for eight years, he was not able to do more than half raise the body so as to rest on one elbow. During the last three or four years of his life, he complained of much pain in the loins. An attack of diarrhœa, about three months before his death, weakened him; his general health, appetite, and strength gave way; hiccough and vomitings came on, and, retaining his mental faculties to the last, he expired on the 26th October 1822.

On examination of the body, a large calculus was found in the right kidney. The left was excavated by an abscess, and calculi were found lodged, one at the renal, the other at the vesical end of the ureter. The upper one had almost ulcerated through the canal, to the outer surface of which the intestine had contracted a slight adhesion. The bladder was thickened, and had many pouches, which contained a considerable quantity of whitish chalk-like deposit from the urine.

Presented by Sir Stephen L. Hammick.

988 A. A vertical antero-posterior section of the lower dorsal and upper lumbar region of the vertebral column, exhibiting a deposit resembling tubercle, occupying the situation of the intervertebral substance between the last dorsal and first lumbar vertebræ, and encroaching upon the bodies of both. The deposit also produces a rounded elevation laterally.

Presented by — Dampier, Esq.

1000 A. The last two lumbar vertebræ. The greater part of the cancellous tissue of the upper one has suffered necrosis: portions of dead bone have come away in the discharge of a psoas abscess; but others are still seen, partially separated from the surrounding healthy tissue. New bone has been thrown out upon the anterior and lateral surfaces of the bodies of both vertebræ, on the right side in sufficient quantity to form a bridge connecting the two together.

Presented by Sir Stephen L. Hammick.

Series XV.—INJURIES AND DISEASES OF THE TEETH.

1007 A. An incisor tooth, attached to one side of the fang of which is a soft, organized, vascular body, in the form of a thick-walled sac. There is a carious spot at the base of the crown of the tooth, on the same side.

Series XVI.—TUMOURS OF THE JAWS.

1033 A. Part of the left ramus of a lower jaw, from the interior of which has grown a tumour about the size of a hen's egg. A small portion of the tumour projects through the internal, but the greater part through the external wall of the ramus. A vertical section which has been made nearly through its outer part shows the interior structure to be that of a multilocular cyst. The cavities are mostly of small size, and divided from each other by strong fibrous septa, containing numerous spicules and plates, with no very definite arrangement.

1040 A. Part of the right ramus of a lower jaw, in which has grown a fibrous tumour, which has caused the absorption of a considerable portion of the entire thickness of the bone. The growth projects on all sides, but chiefly externally. It forms a lobulated mass rising into the mouth, beneath the mucous membrane of the gum, in the situation of the molar teeth. The canine and the first premolar are preserved, the latter completely enveloped by the growth. The other molars are absent, the bone in which they were implanted being entirely destroyed. The cut surface of the tumour shows a pale homogeneous basis, intersected by undulating bands of fibrous tissue.

Presented by C. G. Guthrie, Esq., F.R.C.S.

1052 A. Part of the head of a girl, with a large recurrent fibroid tumour occupying the greater portion of the left side of the head. The tumour had originated from the left maxillary region; it projects with a sloughing surface into the mouth, completely fills the pharynx, depresses the epiglottis, and has grown along the anterior surface of the spine and the adjoining left outer surface of the cranium. Its external surface is smoothly rounded, and divided by a transverse groove into an upper and a lower lobe, of which the latter is the larger. Sloughing of small circular portions of the skin has occurred on the upper lobe; and on the most prominent part of both lobes are large roundish cicatrices, probably from previous operations. The tumour is

composed of a pale greyish-white dense tissue, intersected by bundles of white fibres. It is firm and elastic, except in the centre of the lower lobe, where there is an irregular cavity, formed by the softening of a portion of the tissue.

The following account of the case accompanied the specimen :—

"The girl submitted to three operations; but, unfortunately, after each a recurrence of the disease speedily followed. She always made a rapid recovery, soon became fat, and enjoyed in the intervals between the operations almost robust health.

"The first operation was performed on the 4th of October, 1858, when she was admitted as a patient in the Great Northern Hospital, under my care. She had then what might be termed a large epulis growing from the anterior and inner surface of the ascending ramus of the lower jaw of the left side, extending from a point near the angle to close upon the condyle. I removed the tumour with the aid of a pair of bone forceps, cutting away, as I then hoped, all its bony attachments. In the following month (November), about six weeks after the first operation, a small elastic mass appeared in the temporal fossa of the affected side; but the jaw was apparently free. This I cut down upon, and excised; but during the operation I found that it had evidently sprung from its original site, and, extending upwards, had passed beneath the zygoma into the temporal fossa.

"The last operation was in June of last year (1859), when, in consequence of the great size the tumour had attained, the inability of the girl to open her mouth, and the great difficulty she experienced in deglutition, I determined to remove a portion of the [inferior] maxilla. This I did by sawing through the bone at its angle, and then disarticulating it.

"After the removal of this portion of the jaw, I discovered that the tumour had formed so many attachments to the periosteum of the bones at the base of the skull, that I was compelled to leave some of the disease behind. The rough and thickened condition of the periosteum covering the portion of bone which was removed shows clearly the site from which the tumour grew. Portions of the tumour were kindly examined microscopically by Mr. Paget, Mr. Savory, and Mr. Hulke; and all concurred in assigning it to the class of recurring fibroid tumours.

"At the latter part of last November (1859), the girl was readmitted into the Hospital to be under my observation. The tumour had again grown to a large size, and, from the space it occupied in her mouth, interfered much with her taking her proper amount of nourishment. It now began to soften and to ulcerate on its surface, both externally and within the mouth; and occasionally very alarming hæmorrhage would take place, such as to threaten immediate dissolution; but from all these she rallied. Within the mouth large sloughs would occasionally separate, allowing her to recruit her health, by enabling her to take additional nourishment.

"Just before Christmas 1859 she left the Hospital to stay with her parents, and from that period I did not again see her alive; but I am informed by her mother that, the tumour continuing to increase, she was at last scarcely able to swallow any food, and what little she did was in a fluid form and in very small quantity. Gradually getting weaker, she ulti-

mately died exhausted; and from the fearfully emaciated condition in which I found the body after death, I feel convinced that she died of inanition."

A figure of the head is published in the 'Transactions of the Pathological Society,' vol. xi. p. 262.

Presented by George Lawson, Esq.

1059 A, 1059 B, and 1059 C. Portions of a head with a large medullary growth, probably originating from the walls of the right antrum. Part of the growth forms a smooth tumour, which projects from the right maxillary region, involving the lower lid, so as completely to hide the eye on that side. It also projects into the mouth, and has displaced the tip of the nose towards the left side. The greater portion of the growth is soft, pale, and homogeneous; and the surface of its section is like that of brain. The head has been longitudinally divided into a central and two lateral portions.

1059 A. The middle portion of the head.

1059 B. The right side of the head. The relations of the several parts in the cut surface may be recognized by observing the position of the eyeball and of the cervical vertebræ. The bones of the face, the lower jaw excepted, have disappeared; their place is occupied by the medullary growth. The bones of the base of the cranium, the adjoining vertebræ, and the lower jaw are soft, and filled with medullary deposit. Several large yellow, opaque and infiltrated glands are seen close upon the muscles in front of the spine.

1059 C. The left side of the head. The relations of the different parts will be understood by observing the position of the tongue, the nasal cavities, and the cervical vertebræ. The sphenoidal cells, the pharynx, larynx, and the cavity of the mouth are laid open. The medullary mass occupies the space between the roof of the mouth and the base of the cranium. The uvula and soft palate are thickened by infiltration with medullary matter. The tongue and the other soft parts attached to the lower jaw appear to be unaffected by the disease.

From a woman, 55 years of age, a working upholsteress, who died April 27, 1860. She is stated to have experienced uneasy sensations in her face for three years; but the tumour did not display itself externally until ten months before her death, after which time it grew rapidly.

Presented by E. E. Sass, Esq.

Series XX.—INJURIES AND DISEASES OF THE PHARYNX AND ŒSOPHAGUS.

1088 A. A portion of the pharynx and œsophagus, with the corresponding part of the larynx and trachea. The lining membrane of the œsophagus immediately below the level of the cricoid cartilage is deeply ulcerated for a space of rather more than an inch in length, and extending round the circumference of the tube. The ulcer attains its greatest depth at the centre of its anterior part, where it has perforated all the coats of the œsophagus, which appears at this spot to be closely adherent to the trachea.

Presented by R. R. Robinson, Esq.

Series XXII.—INJURIES AND DISEASES OF THE STOMACH.

1141 A. One half of a mass obtained from the stomach of a cat. It is composed of broken birch-twigs, agglutinated together so as to form a solid cast of the interior of the organ. The twigs are mostly placed with their long axes corresponding with that of the stomach.

The animal had been at times observed to eat birch brooms.

Presented by Dr. Edwards Crisp.

1141 B. The stomach of a woman who, during her lifetime, had been in the habit of swallowing pins. From the pyloric end, nine ounces of pins, of a purple-black colour, not corroded, of various sizes, but all bent or broken, were removed (see next specimen). This portion of the stomach is highly vascular, and presents a remarkable condition of the mucous coat, it being much thickened and closely studded with outgrowths of various forms, some broad and flat, and others very prominent and flattened laterally from mutual pressure.

The upper half of the duodenum is distended by a mass of pins very tightly packed, and wholly obstructing the tube. These weighed nearly a pound.

From a married woman, 41 years of age. When seventeen years old, and again

shortly after the birth of her fifth child in December 1842, she was affected with severe hæmatemesis. In the autumn of 1845 she complained of frequent sickness, with pain in the epigastrium and left groin, and between the shoulders, shooting through to the left breast. Upon examination, a hard tumour was discovered in the left iliac fossa, which moved freely across the abdomen as she turned from side to side. The nausea increased, and the stomach rejected everything; large quantities of a green ropy mucus, occasionally mixed with blood, were thrown up; and the emaciation and exhaustion became so great, that her death was daily expected. The vomiting however ceased, and she took food and gradually gained strength, and returned almost to her usual health. After the lapse of five years, similar symptoms came on; and in October 1850, three weeks of incessant vomiting terminated in her death. On *post-mortem* examination, the stomach was found drawn down to the pubes, and in its form resembled a champagne-bottle. The pyloric end lay beneath the arch of the pubes, and the duodenum under a portion of the sigmoid flexure of the colon. The intestines were of very small calibre. The cæcum and colon resembled the small intestines, the bands and sacculated appearance being scarcely discernible. No ulceration was apparent throughout the whole length of the intestinal canal, nor was there found the slightest peritoneal attachment, or appearance of inflammation within the cavity of the abdomen. There was nothing abnormal about the remaining viscera.

It was now ascertained for the first time by the medical attendant, that the patient had been from her childhood in the habit of swallowing pins, having previously bent the head and point together. She had a keen appetite, and would always partake of any food she fancied, however improper or indigestible. When a child, she was fond of eating starch and slate-pencil.

The above particulars are extracted from the report of the case in the 35th vol. of the 'Medico-Chirurgical Transactions,' 1852.

Presented by John Marshall, Esq.

1141 C. The pins taken from the above-described stomach. A small brass weight is among them.

Presented by John Marshall, Esq.

1141 D. A few pins which were found in the bed and around the bedstead of the same patient. They are bent as if prepared to be swallowed.

Presented by John Marshall, Esq.

1142 A. Portion of the stomach of a person who was poisoned with sulphuric acid. The mucous membrane is rough and shaggy, having been partially destroyed. It has a rusty tinge, which, in the lower part of the preparation, insensibly passes into a brownish black. Dark, dotted, branched lines, caused by the coagulation of blood in the vessels, can be seen in some places.

Presented by James Paget, Esq.

1159 A. Half of a tumour from the stomach of a Cod-fish, apparently originating in the submucous areolar tissue. The section shows a homogeneous basis of pale grey colour, intersected in various directions by curving bundles of white glistening fibrous tissue. In the centre is a small cavity.

The remainder of the tumour is No. 221 A.

1159 B. Portion of a stomach, the mucous surface of which is studded with lobulated, pedunculated, polypoid growths about the size of hazel-nuts, mostly flattened at the sides, as if from mutual pressure. The mucous membrane of the entire stomach was affected in the same manner.

From a gentleman 76 years of age, who, though his health otherwise was good, suffered constantly from dyspepsia, accompanied by a peculiarly white tongue. He is said to have always been very plain and moderate in his diet.

Presented by George Skinner, Esq.

1167 A. The cardiac portion of a stomach, with part of the œsophagus. Around and immediately below the cardiac orifice is a tumour, irregularly nodulated on the surface, and hard to the touch. It projects so far into the cavity, and causes such an obstruction to the canal, that, before it was cut open, it was with difficulty that a probe could be passed from the œsophagus into the stomach. The mucous membrane is ulcerated at this point. A microscopical examination of this tumour showed it to be a cancer of the scirrhus variety, with a dense fibrous stroma. The calibre of the œsophagus above the obstruction was much increased. The inner surface of the stomach was florid, and, except at the cardiac orifice, seemed healthy.

Presented by Erasmus Wilson, Esq., March 20th, 1858.

Series XXIII.—INJURIES AND DISEASES OF THE INTESTINES.

1186 A. A glass drop of a lustre, swallowed by a boy six years of age, and passed *per anum* fifty-two hours afterwards.

Presented by J. F. Streeter, Esq.

1193 A. The lower part of a colon and rectum, everted, the mucous surface of which is covered with flakes of coagulated lymph.

From a man who had suffered under the ordinary symptoms of dysentery, although no ulcerations were found on the large intestines after death. He had passed large flakes of lymph, pus, and some blood.

Presented by Dr. S. J. Goodfellow.

1206 A. Portion of a colon, of which the mucous membrane is covered with large ulcers, probably of dysenteric origin. Some are oval, but others of irregular shape, being formed by the coalescence of smaller ones. The margins of the ulcerated surfaces are fringed with long loose shreds of sloughing membrane, and their bases are ragged, and in some places contain dark spots, probably of extravasated blood.

From a seaman, 33 years of age, who was invalided from the East Indies. The post mortem examination showed most of the remaining viscera to be in a normal condition.

Presented by Sir Stephen L. Hammick.

1208 A. The commencement of a colon, with the cæcum and appendix vermiformis, from a patient who had suffered from chronic dysentery. In the appendix there are some small, roundish, sharply defined ulcers; but in the other parts nearly the whole mucous surface is removed by ulceration, leaving exposed a ragged flocculent surface of submucous tissue.

Presented by Sir Stephen L. Hammick.

1208 B. Portion of a colon, affected with dysenteric ulceration. The large irregular ulcers, formed by the coalescence of many small ones, have ragged, shreddy, and in some places undermined edges.

From a seaman, 29 years of age, who died in Haslar Hospital, of chronic dysentery contracted in the East Indies. On post mortem examination, the disease was found only to implicate the colon, the other intestines being perfectly healthy.

Presented by Sir Stephen L. Hammick.

1214 A. A portion of small intestine from a patient who died from typhoid fever. In the upper part of the preparation is a large ulcer which has perforated the coats of the intestine, but the aperture is blocked up by a nearly de-

tached, dark-coloured, shreddy slough. A layer of lymph has been effused upon the adjoining peritoneal surface. Towards the lower part of the specimen is another large ulcer, the base of which is formed by the submucous tissue, and from which a ragged slough is partially detached. Several smaller ulcers are also scattered upon the mucous membrane.

Presented by Dr. S. J. Goodfellow.

1214 B. A portion of ileum, injected and everted. There is a large oval typhoid ulcer, corresponding to one of the Peyer's patches, from which the slough has separated, and which appears about to heal. There are also several smaller circular ulcers formed by the ulceration of the solitary glands. The increased vascularity of the thickened mucous membrane around the edges, and the dense, white, and but slightly vascular tissue of the base of the ulcerated surfaces are beautifully shown in the preparation.

Presented by Dr. S. J. Goodfellow.

1215 A. A portion of ileum, in the mucous membrane of which are numerous small circular or transversely elongated oval ulcers, with smooth bases and clean-cut edges, as if resulting from the separation of sloughs from the smaller aggregated, and solitary glands.

Presented by Dr. S. J. Goodfellow.

1231 A. A portion of ileum, everted, on the mucous surface of which is a large ulcer of somewhat circular form. Its base is formed of thickened submucous tissue, and the membrane at its edge is broken up into delicate flocculent shreds. In the upper part of the preparation is a much smaller ulcer, with similar characters.

From a patient who died, at the age of 27, of phthisis pulmonalis.

Presented by Sir Stephen L. Hammick.

1246 A. Portion of an ileum, in which all the Peyer's patches and solitary glands are swollen and elevated. Numerous small, but deep, ulcers are seen upon the surface of some of the patches, giving them a peculiar pitted or worm-eaten appearance. By the confluence of such ulcers, the whole substance

of the larger patches is irregularly excavated, leaving only the elevated and tumid margin.

Presented by Dr. J. S. Goodfellow.

1246 B. Portion of an ileum, exhibiting a similar tumid condition of the solitary and Peyer's glands. On the surface of one of the latter, ulceration has commenced.

Presented by Dr. S. J. Goodfellow.

1250 A. A portion of a colon, with the cæcum and appendix vermiformis. In the latter, about half an inch from its commencement, is an ulcer which has perforated all its coats. Some lymph has been exuded around the margin of the aperture, and upon the serous surface of the bowel.

From a girl, 10 years of age, delicate-looking, but generally in good health. On June 19th, 1851, she was feverish, complained of pain in the abdomen, and the bowels were costive. Two days before she had eaten damson pudding, and might have swallowed a stone; she had also fallen from a low window some time before, and once complained of hurting the side of her abdomen against a wheelbarrow. On the 21st she was found to be suffering from pain in the right iliac region, where there appeared to be more fulness than on the opposite side, and also tenderness on pressure. The legs were drawn up; there was vomiting of greenish fluid, and no action of the bowels, although aperients had been given. The pain was of a spasmodic character, so severe at times as to cause the child to scream for several minutes. Calomel and opium and turpentine enemata were administered. On the 23rd the abdomen was very tense; the pain severe; pulse 120; the countenance anxious; the bowels not relieved. She continued in this condition until the morning of the 25th, when she died.

On post mortem examination, the small intestines were found greatly distended with air, and covered with flakes of recent lymph, by which they were rendered more or less adherent to each other. The lymph was particularly abundant around the cæcum and vermiform appendix, and on separating some adherent coils of ileum, a small quantity of pus was seen in the right iliac fossa. An ulcerated opening, admitting a common-sized director, was seen near the base of the appendix vermiformis, which contained a quantity of clay-like matter, which on pressure escaped through the aperture. The communication between the appendix and the bowel was completely closed by a plug of lymph deposited close to the ulcerated opening. The whole of the intestinal canal was carefully examined, but nothing else abnormal was discovered, except that the mucous membrane of the last four inches of the ileum was much congested and ecchymosed.

Further details of the case will be found in Dr. Crisp's Jacksonian Prize Dissertation on "Obstructions of the Intestines," 1851, MS. Roy. Coll. Surg. Library, Case 1.

Presented by Dr. Edwards Crisp.

1361 A. A portion of small intestine and cæcum, from a patient who died of internal strangulation. There are two small diverticula from the ileum, both of which appear to be formed of all the coats of the intestine, serous, muscular, and mucous. They are situated very near to each other, and about two feet from the ileo-cæcal valve. One arises very obliquely from near the mesenteric border of the intestine, and is directed downwards. Its first portion is not more than a quarter of an inch in diameter, but it afterwards dilates into a flask-shaped blind extremity; its length is two inches. The second arises from the convex free margin of the intestine, two inches above the other. It is three-quarters of an inch long, widest at its commencement, and tapers gradually to an extremity which is continuous with a strong, round, fibrous cord, also about three-quarters of an inch long, which by its other end is firmly adherent to the surface of another portion of the intestine, about a foot higher up. This diverticulum and cord form a constricting band, under which the strangulated portion of intestine, with its mesentery, had passed. This consists of about two feet of the lower end of the ileum, from immediately above the ileo-cæcal valve to the upper diverticulum. At the post mortem examination it was found to be in a state of great engorgement, having much recent lymph effused upon it, especially round the seat of stricture, and lying in the upper and posterior part of the left side of the pelvis. On the cæcum, about two inches from the ileo-cæcal valve, is a small rounded pouch of intestine, having an aperture of communication that would only admit a small probe. The vermiform appendage is adherent in its whole length to the outer surface of the cæcum, and its extremity is united by a short fibrous band to the side of the small pouch just mentioned.

The diverticulum which caused the stricture by the adherence of its extremity to another portion of intestine appears to correspond in situation and structure to the "diverticulum verum" of Meckel, resulting from the non-closure of a portion of the fœtal vitelline duct; but the second pouch on the ileum, and that on the colon, must have had a different origin.

John A., 21 years of age, a sawyer by trade, of costive habit, was admitted a patient of the London Dispensary on May 11th, 1833. He had been at work as usual on the 8th, when he suddenly felt a sensation as if his bowels were drawn up in knots; he soon became sick, and had since no motion. He had been twice bled, with relief, and leeched upon the

abdomen; and he had taken calomel, jalap, and scammony. On the 16th he was much exhausted and emaciated, his features very much shrunk; the abdomen greatly distended and tympanitic. There was something resembling a pouch to the right of the umbilicus, and below this an induration which was very tender when touched. Pressure upon any part of the abdomen gave pain, but more especially in the before-mentioned part and in the course of the descending colon. He lay with his legs drawn towards the abdomen, being easiest in that position; the tongue was brownish; pulse soft, 108; skin perspiring; rectum, upon examination, found to be normal and healthy; he had had no rigors. With the exception of two days, vomiting had been constant from the commencement of the illness; this morning a large quantity of very offensive stercoraceous matter was brought up. He was ordered a common enema immediately, and two grains of calomel, with a quarter of a grain of opium, and a drachm of Epsom salts in peppermint-water every two hours, and to have a turpentine enema in the evening.

May 17th. The injections soon returned, only slightly tinged with fæcal matter. The vomiting continued urgent; the matter rejected was yellow, and seemed to come from the small intestines. He became delirious, and died at 11 A.M.

In the account of the case published by Mr. Robinson in the 'London Journal of Medicine,' July 1851, the description of the morbid parts differs somewhat from the one given above.

Presented by R. R. Robinson, Esq.

Series XXVI.—INTUSSUSCEPTION.

1368 A. Portions of the small and large intestines, exhibiting an intussusception of part of the ileum, cæcum, and colon into the lower part of the last-named gut.

From a man who died in Haslar Hospital, at the age of 27. Six months before his death he was seized with constipation of the bowels, lasting for three days, and resisting the most active treatment. Although he gradually recovered, the bowels remained in a most sluggish state, requiring drastic medicines to produce any evacuation. Two months afterwards frequent vomitings came on, with a constant sense of uneasiness in the abdomen, where, rather to the right of the umbilicus, a tumour was detected. Losing his appetite and strength, and becoming greatly emaciated, he gradually sank, the nature of the disease being only discovered at the post mortem examination.

Presented by Sir Stephen L. Hammick.

1368 B. A portion of intestine, showing an invagination of the cæcum and a con-

siderable piece of the ileum into the colon. The appendix vermiformis is of considerable length, and is not included in the intussusception.

From a man whose health had always been good until suddenly seized with a violent pain in the bowels, vomiting, constipation, and tumidity of the abdomen. He died seventy-nine hours after the commencement of the symptoms.

Presented by Sir Stephen L. Hammick.

1368 c. A portion of intestine, showing an intussusception of the ileum a few inches above the ileo-cæcal valve. The intussuscepted part has passed through the valve, and entered the ascending colon.

From a boy 4 years of age. On returning from a long walk, he complained of uneasiness in the bowels; and soon after, vomiting came on, and continued, with occasional intervals of many hours, until his death, which took place twelve days after the commencement of the symptoms. All varieties of aperient medicines were given, and enemata thrown daily into the rectum, but without producing any evacuation. The child took food at times, and an average amount of sleep. There was no pain or tenderness indicating inflammatory symptoms; and he was sensible to the last, dying apparently from general exhaustion.

Presented by George Skinner, Esq.

1369 A. Part of the intestines of a child, in which the lower portion of the ileum, the cæcum, and appendix vermiformis, with part of the colon, have been intussuscepted into the lower part of the last-named bowel. The contraction and folding of the walls of the invaginated portion, caused by its attachment to the unyielding mesentery, and in consequence of which a long piece of intestine comes to occupy a very small space, is well seen in the preparation. Lymph has been effused on both the peritoneal and mucous surfaces of the invaginated bowel.

1371 A. Part of the intestines of an infant, in which the lower portion of the ileum, the cæcum, and the greater part of the colon have passed into the sigmoid flexure and rectum, which they greatly distend, forming a hard mass, about five inches in length, and two in diameter. The intussuscepted portion is much congested, and on its mucous surface are some flakes of lymph. The opening at its lower end is transverse. The ileum, above the included portion, is distended, and its vessels congested. The peritoneum covering the left

kidney was tightly stretched, and the stomach and duodenum were drawn away from their usual situation by the implication of the great omentum.

From a healthy, unweaned infant, 8 months old. It was attacked with diarrhœa, supposed to have been caused by exposure to cold. After this had continued for seven days a dose of castor oil was given, and produced free discharges from the bowels. On the following day the medical attendant was called in. He found the child with sunken eyes, feeble pulse, and general symptoms of exhaustion. It was listless, scarcely seemed to suffer, and had frequent vomiting and a discharge *per anum* of mucus streaked with blood. After continuing in this state for three days, it died.

Presented by W. Pretty, Esq.

Series XXVIII.—INJURIES AND DISEASES OF THE LIVER.

1404 A. Portion of a liver, the natural substance of which is almost entirely replaced by numerous large, soft medullary tumours. From the projection of these outwards, the surface has a lobulated appearance. The entire organ weighed ten pounds and three-quarters. The gall-bladder is completely filled with calculi.

From a married lady, 53 years of age, of robust frame, and exceedingly corpulent, the mother of eight children. The last child was born eight years, and the catamenia had ceased five years, before her death. Although she had, during several years, complained occasionally of pain in the right side above the hip, it was not until two months before her death that the attention of her medical attendent was specially directed to the hepatic region, when a large tumour was detected, though, owing to the great accumulation of fat in the abdominal walls, its boundaries could be with difficulty defined. This continued to increase in size, and the patient gradually lost health and strength. The action of the bowels was extremely irregular; but the character of the evacuations did not indicate biliary derangement. Other tumours, apparently of malignant nature, formed in the adipose tissue distributed over various parts of the trunk and extremities, especially the left arm, both forearms, and the left thigh. After death no disease was found in any of the abdominal viscera, except the liver.

No. 254A is another portion of the same liver.

Presented by Jonas H. Pope, Esq., September 5th, 1850.

1425 A. Portion of a liver, with a section of a spherical cyst, more than three inches in diameter, partially imbedded in its substance. The walls of the cyst are

thick, and contain an abundant deposit of calcareous matter. It encroached upon the right lung, pushing up the diaphragm, which was adherent both to the lung and to the cyst.

From a man who died at the age of 69, of disease of the urinary organs, consequent upon enlargement of the prostate. He was not known to have suffered, during life, from symptoms referable to the liver.

Presented by D. de Berdt Hovell, Esq.

1425 B. Portion of a liver, having imbedded in its substance a spherical cyst about the size of an orange. Within the cyst are the shrivelled remains of the wall of an hydatid, and a considerable quantity of coagulated lymph.

Presented by Messrs. Robarts and Jay.

Series XXIX.—DISEASES OF THE GALL BLADDER AND DUCTS.

1456 A. A gall bladder, with the adjacent portion of the liver. The coats of the gall bladder are very much thickened, and hardened by an abundant calcareous deposit, and its interior is filled with a soft, solid substance, containing the colouring-matter of bile, and a large quantity of cholesterine.

The patient had no symptoms referable to hepatic derangement; but when the stomach was empty, had complained of a sense of oppression and weight at its pylorie extremity, which was relieved upon taking food.

Presented by E. L. Bagshaw, Esq.

Series XXXI.—DISEASES OF THE LACTEAL AND LYMPHATIC VESSELS AND GLANDS.

1463 A. A cluster of mesenteric glands, very greatly enlarged, from a boy thirteen years of age.

Presented by George Skinner, Esq.

Series XXXII.—INJURIES AND DISEASES OF THE SPLEEN.

1479 A. Portion of the spleen of a horse, which had been ruptured, several years before death, by a violent blow from the shaft of a cab. In the margin of the organ is a rent, about two inches in depth, the edges of which are greatly retracted, and completely cicatrized.

Presented by Dr. Edwards Crisp.

1480 A. An hypertrophied spleen, weighing eight ounces, from a child two years and three months old.

For seven months the child had suffered from wasting of the limbs, difficult dentition, and a perfectly anæmic condition of the whole body, more particularly induced by hæmorrhage from the nostrils, which occurred three times, the last to such an extent as to destroy life. Throughout the illness, the intestines poured forth fœtid, dark, grumous secretions. The appetite was at times enormous, but the food never appeared properly digested. Three months before death the abdomen became distended, evidently from enlargement of both liver and spleen. It was remarked that, during the attacks of epistaxis, the abdomen rapidly diminished in size.

Further particulars of the case will be found in Dr. Crisp's 'Treatise on the Structure and Use of the Spleen,' 1855, p. 155.

Presented by Dr. Edwards Crisp.

1480 B. The hypertrophied spleen of a Pea-fowl. The bird died in confinement, and was very fat. The spleen weighed three ounces five drachms. The liver was also greatly enlarged. The healthy spleens of two birds of the same species weighed eighteen and twenty-three grains respectively.

Presented by Dr. Edwards Crisp.

1487 A. The spleen and a portion of the liver of a Common Crane (*Grus cinerea*); both are enlarged, and filled with nodular deposits of tuberculous matter.

Presented by Dr. Edwards Crisp.

1487 B. The spleen of a Spurred Plover (*Charadrius spinosus*), in which are depo-

sited numerous roundish masses of yellow tuberculous matter, about the size of millet-seeds. There were tubercles also in the lungs and liver.

Presented by Dr. Edwards Crisp.

1487 c. The spleen of a Guinea-fowl (*Numida cristata*), in a similar condition.

Presented by Dr. Edwards Crisp.

1487 d. The gizzard and spleen of a Guan (*Penelope pileata*), injected. The latter contains numerous small yellow tubercles.

Presented by Dr. Edwards Crisp.

1487 e. The spleens of two hens, filled with tubercular deposits.

Presented by Dr. Edwards Crisp.

1490 a. The spleen of a lamb, containing an hydatid cyst of the size of a large orange. The walls of the cyst are well seen in the preparation. Several smaller cysts are situated between its external surface and the cavity which it has formed in the spleen; but not any within the cyst itself.

Series XXXIII.—DISEASES OF THE THYROID GLAND.

1495 a. A bronchocele, rather larger than No. 1495. The sections show that it has an unusual amount of intralobular fibrous stroma. The right lobe is considerably more enlarged than the left.

Presented by R. R. Robinson, Esq.

1502 a. A thyroid gland the right lobe of which is converted into a globular cyst, about the size of an orange, with thick laminated walls. The interior of the cyst appears imperfectly divided by fibrous septa, and the cavities are filled by a brownish, soft, flaky substance, like coagulated fibrin and blood.

A seton, introduced through the cyst by the surgeon in attendance, caused diffuse inflammation, resulting in the death of the patient.

Presented by T. B. Curling, Esq.

Series XXXIV.—DISEASES OF THE PERICARDIUM AND OF THE HEART AND ITS VALVES.

1507 A. The heart of a Negro, of which nearly the entire surface is covered with a delicate layer of coagulated lymph, in some places of a finely reticulated character, in others drawn out into slender filaments.

Presented by Sir Stephen L. Hammick.

1507 B. A heart, the greater part of the surface of which is covered with a thick layer of recently deposited reticulated lymph, very like that in No. 1507.

From a man, 20 years of age, who died on the twenty-third day from the commencement of an attack of pericarditis.

Presented by Sir Stephen L. Hammick.

1529 B. Part of a heart. Projecting from the upper and posterior inner surface of the right auricle is a circular, flattened, lobulated, and flocculent growth, about an inch in diameter. A considerable mass of the same growth is seen external to the wall of the auricle, where it seems to have originated, and subsequently to have penetrated into the cavity. It is probably of a malignant nature.

From a seaman, 35 years of age, who was said to be suffering from secondary syphilis at the time of his death, which was supposed to be occasioned by the combined effects of this disease and mercury. The action of the heart had been observed to be very irregular.

Presented by Sir Stephen L. Hammick.

1533 A. A heart, in the muscular substance of which are two small cavities which are said to have contained pus (pyohæmic abscesses ?). One is situated near the apex, rather to the posterior aspect; the other in front of the left venticle, near the septum.

From a lad of 17, of scrofulous habit, suffering from ulceration and suppuration of the shoulder and wrist joints. For some time before his death, he had very constant vomiting.

Presented by Sir Stephen L. Hammick.

1533 B. A heart, in the walls of the ventricles of which is a large deposit of hard,

white, calcareous matter, in thick, irregular, lamelliform masses, lying immediately beneath the exocardium. It is most abundant over the whole surface of the right and the posterior and upper part of the left ventricle.

From a man 45 years of age. He had complained, for years, of uneasy sensations about the heart, with great irregularity of pulse; the beats were never more than sixty in a minute, and during the last month of his existence not more than thirty-six, and even this number seemed to cause the heart very great exertion. He had great dyspnœa; the face was turgid, and the legs œdematous up to the knees. Latterly he became either very drowsy and comatose or, when not in this state, irritable and anxious.

Presented by Sir Stephen L. Hammick.

1540 A. The commencement of an aorta, with its valves. The adjacent borders of two of the valves are much thickened and adherent; and attached to their edges is a nodulated mass of a dark brown, hard substance, probably lymph, in which earthy matter has been deposited.

Presented by Sir Stephen L. Hammick.

1542 A. A heart, in which the left auricle is very greatly dilated. All the other cavities are large. The mitral valve is thickened, more opaque than natural, and probably closed inefficiently. The left auriculo-ventricular orifice is very large. All the other valves are quite normal. The apex of the heart was adherent to the diaphragm, and about a pint of straw-coloured fluid was found in the pericardium.

From a man who had suffered for eight years from rheumatism, attended with palpitation, difficulty of breathing, and dropsy. For the last four years of his life he could never lie down in bed for more than three quarters of an hour at one time. His death occurred suddenly, when reaching something from a height. He is said to have derived much benefit from digitalis, which he took in large quantities and for a very long period.

Presented by John Prankerd, Esq., Feb. 1860.

1546 A. A heart, of which the left ventricle is considerably dilated. Its endocardium, especially towards the aortic orifice, is thickened and opaque, and has some flocculent lymph adhering to its surface. The aortic valves are very much thickened, and somewhat corrugated. The mitral valve is also thickened.

Presented by Sir Stephen L. Hammick.

1550 A. A left auriculo-ventricular valve, in the larger flap of which is deposited a considerable mass of hard, rough, dark-coloured substance, containing a large quantity of earthy matter. The lining membrane on the auricular side of the valve has given way in several places, exposing the rough granulated surface of the deposit; in other places it is so thin that the dark colour is seen through it.

From a man 38 years of age, admitted into the Naval Hospital for intense occipital pain, for which he had been frequently and freely bled without obtaining much relief. He died the day after his admittance; and, on post mortem examination, no disease was found in the brain or its membranes. The heart was large and flabby, and the pericardium adherent.

Presented by Sir Stephen L. Hammick.

1551 A. The commencement of an aorta, with two of the valves, dried and exhibiting small rough nodules of earthy matter in the valves, and an opaque white granular deposit both in the artery and the adjacent pericardium.

From a patient aged 72.

From the Museum of Sir A. P. Cooper.

1558 A. Part of a heart, including the mitral and aortic valves, which are much thickened and opaque. The three aortic valves have deep ulcers, with ragged shreddy margins, situated in one at the free border, in the other two near the centre of their convex surface. In the middle of the anterior flap of the mitral valve is an irregular, transverse, ulcerated opening, about four lines in length.

From a seaman, 30 years of age, who, during the two years preceding his death, had been subject to violent palpitation of the heart, irregularity of pulse, sense of suffocation, frequent faintings, and severe pain shooting through the thorax to the spine.

Presented by Sir Stephen L. Hammick.

1560 A. Portion of an aorta with its valves, of which two appear healthy; the other is thickened, rough, and perforated by a large, irregular opening, around the margin of which nodular masses of lymph have been deposited.

From a man who died of phthisis pulmonalis, without having shown any symptoms of heart-affection.

Presented by Sir Stephen L. Hammick.

Series XXXV.—INJURIES AND DISEASES OF ARTERIES.

1566 A. Part of a heart, with the ascending aorta. In this vessel, immediately above the semilunar valves, is lodged a piece of integument (resembling in character that of the axilla) about an inch in diameter, with a considerable thickness of subcutaneous fat, forming a mass which must have nearly equalled the calibre of the vessel in size. Immediately above this is a musket-ball of the ordinary size. Both the piece of skin, or rather the adipose tissue belonging to it, and the bullet, are adherent by means of recent lymph to the inner surface of the right wall of the aorta, at about the middle of the ascending portion of the arch. The vessel has been opened anteriorly, and part of the wall has been cut away in making the preparation.

When this preparation was remounted in 1862, the surface of the bullet had become completely oxidized, and it had fallen from its place, leaving a thick crust of oxide of lead adhering to the wall of the artery and to the intruding cutaneous tissue. It has now been replaced, and retained artificially in the position it originally occupied.

The following history accompanied the specimen:—"Mr. Brunton, Assistant-Surgeon on board the hospital ship in the Mediterranean, says that a boat's crew, detached to cut out a vessel, met with such determined resistance that several were killed or wounded, and amongst the latter was a seaman who affirmed that a musket-ball, striking his oar, had run along it and entered his side: he bled a good deal, and then, almost completing the third day from the injury, died.

"The post mortem examination showed that a wound was made between the eighth and ninth ribs, and passed through the diaphragm into the pericardium, which was found full of blood, and the hole made by the shot closed up by firm coagulum. Much blood had escaped into the chest and abdomen, not only from the vessels wounded in the course of the ball, but from the heart itself. The ball was found adhering to the inner side of the aorta; and there it is now."

Presented by Sir Stephen L. Hammick.

1570 A. Part of the integument and subcutaneous tissue of the temple, with a "traumatic aneurism," consisting of a small, firm, globular coagulum, hollow within, and surrounded by condensed areolar tissue, formed after a wound of the temporal artery. The skin has sloughed over the surface of the tumour.

From a seaman in Haslar Hospital, who had been bled from the temporal artery three weeks previously. Repeated hæmorrhages having occurred from the tumour which formed beneath the wound, it was excised, and both ends of the artery tied. The patient soon recovered.

Presented by Sir Stephen L. Hammick.

1570 B. The principal arteries and veins of the upper part of the left thigh, which had been perforated by a Minié rifle ball. The superficial femoral artery is intact, but the accompanying vein has more than half its calibre shot away. At about two inches from its origin, there is a large wound in the profunda artery, around which has formed a "false" or "traumatic aneurism," consisting of a firm, laminated coagulum, nearly the size of a pigeon's egg. The profunda vein was uninjured.

From a soldier of the 4th Regiment, age 25, wounded at the siege of Sebastopol, August 14, 1855, by a Minié ball of the largest size, which entered the left thigh about 2 inches below Poupart's ligament, passed backwards and slightly outwards, fracturing the femur, and was cut out at the back of the limb, completely flattened. The hæmorrhage, both arterial and venous, was very great, so much so that it was thought inexpedient to continue an attempt made to tie the wounded vessel. A compress was applied, which seemed to restrain it effectually; but death took place on the eighth day after the receipt of the injury.

The case is reported in the "Addenda" to the sixth edition of Guthrie's 'Commentaries in Surgery,' p. 16.

Presented by Deputy Inspector-General R. Taylor.

1572 B. The greater part of a left femoral artery. The upper half of the vessel has been laid open, showing great dilatation of its coats, and abundant atheromatous deposits and a few calcareous plates on its inner surface. In the superficial femoral, three and a half inches below the origin of the profunda, is a transversely elongated aperture, embracing nearly one-half of the circumference of the vessel, with ragged edges. As much as can be seen of the interior of the artery at this spot shows it to be diseased in the same manner as, though in even a greater degree than, the upper part.

From a gentleman aged 73, of middle stature, inclined to corpulency, and of gouty diathesis. On going to bed on the 13th of March, 1858, he found a slight swelling at the top of the

left thigh, near the groin. He had for several days previously felt a slight pain at the same spot, and had been generally out of health, suffering from occasional attacks of shortness of breathing, with pain in the region of the heart resembling angina pectoris, slight bronchial catarrh, and had had several fainting fits. The urine was loaded with albumen. On the 14th, a hard, brawny, œdematous swelling occupied the anterior half of the upper third of the left thigh; and there was a decidedly prominent point over the rectus femoris muscle, about five or six inches below the bend of the groin. On the 15th the swelling had increased, and extended under Poupart's ligament for about two inches. It was hardest at its upper part. Pulsation was perceptible to the eye and touch in the prominent part of the swelling; and ecchymosis, to a considerable extent, had made its appearance. There was no pulsation in the tibial or popliteal arteries. On the 17th the ecchymosis had extended considerably below the knee, the ankle was slightly swollen, and the swelling in the upper part of the thigh had become softer. In the evening he became delirious; the pulse feeble and rapid. He became unconscious during the night, and died at forty minutes past 7 A.M. on the 18th. His general condition had been such as to preclude the advisability of operative interference.

Post mortem examination.—Surface of body very pale. The left thigh measured, at its greatest circumference, five inches more than that of the opposite side. The swelling and ecchymosis extended downwards to the ankle, and upwards above Poupart's ligament in front, and over the glutei behind. There was considerable prominence in front of the thigh, in the spot above indicated. On cutting into the thigh, the skin and tissues beneath were found gorged with extravasated blood, and large clots lay loose among the muscles. At the upper third of the thigh, the sartorius, rectus femoris, vastus internus, and the adductors were more or less broken up by the extravasated blood. The psoas and iliacus muscles were more or less infiltrated, the anterior crural nerve was raised, and the femoral vessels pushed inwards out of their proper course; the sheath of the vessels contained no coagula above the origin of the profunda. No traces of any aneurysmal sac could be found.

The specimen has been figured, and a full account of the case (from which the above abstract was taken) given by Mr. Alfred Leggatt, in the 'Transactions of the Pathological Society,' vol. ix. p. 159.

Presented by Cæsar H. Hawkins, Esq.

1677 A. The lower part of an abdominal aorta, with the common iliac arteries. The aorta, for four inches above its bifurcation, is dilated into a large oval aneurysmal sac, about three inches in diameter. The dilatation appears equally extensive in all directions. The inner coat of the expanded portion is unevenly thickened, corrugated, and torn in places.

1624 A. The arch of an aorta, with the commencement of the great vessels given off from it, inverted. There is an abundant deposit of atheromatous matter

beneath the inner coat, which is unevenly tuberculated, and in many places fissured.

Presented by Sir Stephen L. Hammick.

1624 B. A portion of the thoracic aorta, the coats of which are considerably dilated. There is an abundant deposit of atheromatous and earthy matter throughout the thickened internal coat, and its surface is in many places fissured, or removed in irregular patches.

Presented by Sir Stephen L. Hammick.

1647 A. A heart, with the great vessels. The right side of the aorta, immediately above the semilunar valves, is dilated into a large globular sac, three inches in diameter. The walls of the sac are lined by a firm laminated coagulum, from a quarter to half an inch in thickness.

From a seaman, 45 years of age. Symptoms of aneurysm were first manifested about nine months before death. The tumour, pressing upon the sternum, caused absorption of a portion of that bone, and formed a prominence, visible externally, strongly pulsating, and covered only by the integument. The power of swallowing and speaking remained perfect; but there was great difficulty of respiration, except when in the sitting posture with the shoulders inclined forwards. Death took place suddenly, from rupture of the anterior portion of the sac at the line of its attachment to the sternum, with escape of a large quantity of blood into the left pleural cavity.

Presented by Sir Stephen L. Hammick.

1673 A. The greater part of a thoracic aorta, with a portion of the left lung. The coats of the vessels are abundantly studded with atheromatous and calcareous deposits, and dilated in two places into globular aneurysmal sacs. The contiguous surfaces of the aorta, aneurysms, and lung have become consolidated together. The smaller sac is on the posterior surface of the vessel, about three inches below the origin of the left subclavian artery. The larger one, directly opposite to the former, lies immediately beneath the left bronchus, with the interior of which it communicates by a large opening with ragged edges.

From a man, 27 years of age, who, having been previously in good health, had suffered for seven months from a violent throbbing sensation at the arch of the aorta and in the course of the carotids, with a feeling of thrilling, like the passage of water through the

vessels. He had also a dry, irritating cough, but had not expectorated any blood until the aneurysm burst into the bronchus, when not more than a pint of very fluid blood was thrown up by the mouth. The heart and valves were found to be healthy.

Presented by Sir Stephen L. Hammick.

1712 A. A popliteal artery, on which a large aneurysm had formed, and ruptured spontaneously, necessitating amputation of the limb. The greater part of the aneurysmal sac has been removed; but the oval orifice, with rounded margins, about three-quarters of an inch long, by which it communicated with the vessel, is well seen.

Presented by Sir Stephen L. Hammick.

1714 C. Part a femoral artery, containing a firm, cylindriform, and imperfectly laminated coagulum, which fills the vessel for a distance of four inches, commencing three-quarters of an inch below the origin of the profunda. The clot also extends for an inch into a large branch (the internal circumflex), given off from the superficial femoral. The coats of the artery above and below the situation of the obstruction seem to be healthy.

From an elderly lady, in whom the circulation through the femoral artery had become obliterated, apparently in consequence of arteritis. Mortification of the limb set in, and extended nearly as high as the knee joint, where a broad and deep groove formed in the adjacent living tissues. Amputation was performed at the lower part of the thigh, and the patient made considerable progress towards recovery, but died before the stump healed. The mortified parts are shown in preparation No. 141.

Presented by G. J. Guthrie, Esq.

Series XXXVII.—INJURIES AND DISEASES OF THE PLEURA AND LUNGS.

1754 A. A portion of calcified false membrane which lined the right pleural cavity. It is nearly a quarter of an inch in thickness, shows some indications of lamination, and is rough and granulated on both surfaces. Under the microscope, it does not exhibit any true osseous structure.

From a seaman, 40 years of age, who is said to have died of "bronchitis of long standing."

The right lung was firmly adherent to the parietes of the chest. The calcified connecting material was thickest at the posterior part, and became gradually thinner as it approached the cartilages of the ribs.

Presented by Frederick Jowers, Esq.

1765 A. Portion of a left lung, near the surface of which, immediately beneath the pleura, a musket-ball is imbedded. The pleura in the neighbourhood of the ball is very greatly thickened, in some places measuring nearly a quarter of an inch. The lung-tissue appears as if it had been compressed and infiltrated with fibrin; but in some parts the normal vesicular structure can be detected.

The following history accompanied the specimen:—Henry Barrott, a private in the First Life Guards, aged 27, was wounded at the battle of Waterloo, June 18th, 1815, by a musket-ball, which passed through the muscles of his left upper arm, and entered the left side of his chest, fracturing two ribs. He was a patient in the Hospital at Brussels until March 1816, when he was discharged from the service with a pension. Soon after the receipt of the wound, he coughed up blood, and was treated by repeated venesections. The ball could not be extracted; but, while in hospital, an incision was made into his side, to evacuate a large quantity of matter that had collected in the chest. For many years after, he frequently suffered from attacks of pneumonia, latterly with copious muco-purulent expectoration. He sank exhausted on the 13th of October, 1857, more than forty-two years after receiving the wound.

On post mortem examination, the circular cicatrices caused by the ball on the left upper arm and left side of the chest were still very visible. On raising the sternum, the left lung was found diminished in size, very much solidified, and firmly bound down to the ribs by strong adhesions, which resisted the knife like so much cartilage. On separating the adhesions, a large abscess was found in the lung, containing about a pint of fœtid pus; and in detaching the lung from the posterior wall of the thorax, the ball (which weighed 5 drachms and 34 grains) was found lodged in a cyst.

Presented by Robert Howarth Leach, Esq.

1787 A. Part of the lower lobe of a lung, which has been the seat of recent plastic pleuro-pneumonia. The pulmonary tissue has a uniform solid appearance; in one half of the surface, where the section was made when recent, fibrin has been poured out from the bronchial tubes, and, being coagulated by the action of the spirit, hangs in tufts from the various orifices. The other half of the section, made after the specimen had been hardened, shows the tubes completely blocked up by coagulated fibrin. The pleural surface is coated

with a thick layer of false membrane, which at the base of the lung has a reticulated character.

Presented by Dr. S. J. Goodfellow.

1789 A. The greater portion of a left lung, containing very numerous cylindriform, or nearly spherical, lobed and nodular masses of cartilage, varying in size from less than a line to an inch and a half in diameter. They appear to have originated within the branches of the pulmonary artery, and are imbedded in healthy pulmonary structure, from which, though closely connected, they can be easily and almost cleanly shelled out. Each separate nodule is composed of a varying number of smaller tortuous or cylindriform masses of pure hyaline cartilage held together, yet distinctly marked off from each other, by an opaque, white, fibrous capsule.

From a man, 37 years of age, from whom a large cartilaginous tumour of the right testicle had been removed. The disease appears to have been propagated along the lymphatic vessels of the testicle to the lumbar glands, where a mass was formed, part of which penetrated the walls and projected into the cavity of the vena cava inferior. By means of the current of blood in this vessel the morbid material was probably conveyed to the smaller branches of the pulmonary artery, and in them laid the foundations for the immense and rapidly formed growth of cartilage seen in the preparation. The lungs, which were both similarly affected, weighed together $11\frac{1}{2}$ pounds.

For further details of the case see Prep. No. 206 A., and a paper by the donor, published in the 'Medico-Chirurgical Transactions,' vol. xxxviii. p. 247 (1855).

Presented by James Paget, Esq.

1794 A. A portion of lung, in which there are several soft, round, whitish cancerous tumours. Some are imbedded in the middle of the lung-tissue, others are deposited immediately beneath the pleura, and form prominent rounded projections upon the surface. The texture of the surrounding lung-substance appears healthy.

From a man, 19 years of age, who died with a very large medullary tumour, commencing in the upper part of the left femur. See Prep. No. 837 B., where the history of the case may be found.

No. 254 C. is another piece of the same lung.

Presented by Cæsar H. Hawkins, Esq.

1820 A. Portion of the lung of a collier, infiltrated with carbonaceous matter.

Presented by James Murie, Esq., March 7, 1860.

Series XXXVIII.—INJURIES AND DISEASES OF THE LARYNX, TRACHEA, AND BRONCHI.

1824 A. The larynx, trachea, bronchi, and part of the right lung from a person who died in consequence of the lodgment of a piece of bone in the right bronchus. The bone is seen in the preparation in the situation in which it was found at the post mortem examination. It weighed, when dry, three and a half grains, has a concave smooth surface, and a convex rough one, and one very sharp edge, its breadth being three-eighths and its length a quarter of an inch. It was firmly impacted in the orifice of the third branch of the bronchus, which passed into the middle lobe of the lung, at the distance of an inch and a half from the point of bifurcation of the trachea, and five inches and a half from the lower border of the thyroid body. The mucous membrane around it was of a vivid red colour, but gradually became paler towards the left bronchus, where, as well as in the trachea, it presented its usual colour. The lower two-thirds of the lung were of an ashy slate-colour, of dense consistence, infiltrated with a purulent fluid of a very offensive odour. The upper portion of the right lung, as well as the whole of the left, were healthy.

From a married woman, 46 years of age. The bone accidentally passed into the windpipe, whilst she was eating broth, on the 10th of May, 1849. She was immediately seized with spasmodic cough and threatened suffocation, and some minutes elapsed before she recovered herself. On the following day her voice was hoarse; the respiratory movements were slow, not averaging more than ten or twelve per minute, and accompanied by a wheezing noise; and she was distressed by a constant short cough, aggravated on full inspiration. There was pain at the upper part of the chest, which she referred to the junction of the second rib with the sternum, and at the back of the neck. On ausculting the chest, a marked difference was found on the two sides; on the right, the breath-sound was obscured, the natural vesicular murmur being scarcely perceptible, and a "prolonged and peculiar rhonchus" was heard throughout the lung, but most distinctly over the point to which the pain was referred, and more audibly marked during expiration; on the left

side the respiratory sounds were feeble, but free from rhonchus, and both inspiration and expiration were lengthened.

The distress occasioned by the presence of the foreign body gradually increased, air seemed to enter freely into the upper part of the lung only; the expectoration became copious, purulent, and extremely offensive; profuse night sweats, alternating with paroxysms of fever, came on, and she died on the 5th of July.

The case is published in detail in the 'Medico-Chirurgical Transactions,' vol. xv. p. 1 (1850).

Presented by John Gregory Forbes, Esq.

1831 A. A larynx, with the epiglottis and part of the trachea. The mucous membrane of the glottis is œdematous. The cricoid cartilage has become partially ossified and necrosed, its surface being blackened and detached from the perichondrium and surrounding tissues. An abscess, formed around it, has opened into the left side of the pharynx, between the cricoid and the posterior border of the thyroid cartilages. A piece of blue glass rod is placed in the aperture.

From a man, 47 years of age. He had suffered for nine months from inflammation of the throat and enlargement of the tonsils, and died from suffocation, apparently owing to the contraction of the aperture of the glottis.

Presented by Sir Stephen L. Hammick.

1859 A. A larynx, with the tongue and part of the trachea. Attached to the posterior part of the rima glottidis, between the arytænoid cartilages (which are pressed outwards and forwards), is an elongated, somewhat pyriform growth, which extends upwards nearly as high as the upper border of the epiglottis. Its length is an inch and a half, and its greatest diameter three-quarters of an inch. Its neck is narrow; and its anterior surface, projecting suddenly forwards into the space above the glottis, fits closely the concave posterior surface of the epiglottis, but, being only connected with the loose submucous tissue, the whole growth can readily be moved backwards and forwards. A section of the tumour shows it is vascular and spongy in texture.

Series XXXIX.—DISEASES OF THE KIDNEYS.

1902 B. Section of a kidney, very greatly enlarged by the development of numerous

cysts within it and upon its surface. None of the original substance of the gland can be seen. The cysts are mostly spherical, except where their walls are flattened by mutual pressure. The largest are about an inch and a half in diameter. Some of them are filled with a pale-coloured, soft, solid, homogeneous material.

1903 A. Section of a kidney, much enlarged, and of which the secreting structure has been almost, but not entirely, destroyed by the development within it of very numerous thin-walled cysts, with fluid contents.

Presented by James Paget, Esq.

1954 A. Part of a bladder and right ureter. The latter is dilated, and its coats thickened; and it has lodged within it, near its vesical termination, a calculus of an elongated oval form, about an inch and a half in length. The coats of the bladder are thickened and slightly sacculated.

Presented by Sir Stephen L. Hammick.

Series XL.—INJURIES AND DISEASES OF THE URINARY BLADDER.

1994 A. A bladder, the mucous coat of which has been in great part destroyed by sloughing and ulceration.

From a seaman, 34 years of age, whose general health had been good, and who had never suffered from stricture. After having been exposed to the wet for several hours in scouring a boat, he experienced difficulty in passing urine, with severe pain and other symptoms of inflammation of the bladder, for which he was freely bled. After a time pus, and occasionally blood, was passed with the urine. Severe and frequent rigors, excessive thirst, and great prostration of strength were prominent symptoms. Worn down by suffering, he died nine months after the commencement of the attack.

Presented by Sir Stephen L. Hammick.

2006 A. A bladder, opened in front. In the posterior and inferior part, about midway between the orifices of the ureters, growing from the mucous membrane, is a small solid body, about the size of a hazel-nut, the surface of which is

covered by long, delicate, floating, branched processes, constituting the disease described as " Villous cancer."

2009 A. Section of the bladder of an ox, with a large fungous tumour, probably of malignant nature, growing from the lower part of the anterior surface, and nearly filling the whole of the cavity. The fibrous stroma of the tumour, which appears to be continuous with the walls of the bladder, is so arranged as to form several loculi or cysts, which are filled up with a soft, dark red material, resembling medullary cancer.

Series XLI.—INJURIES AND DISEASES OF THE BRAIN.

2053 A. A brain, from which the upper part has been removed, exposing the cavities of the ventricles. Filling and distending the left lateral ventricle from its extreme anterior to its posterior extremity, is a large, firm, dark-coloured clot of blood, which has also passed through the foramen of Monro into the middle and anterior portions of the right lateral ventricle, raising, and displacing to the right side, the fornix. Some blood is also effused into the substance of the left corpus striatum.

2132 A. The dura mater of an old man, containing numerous large, flat, osseous plates. The walls of the superior longitudinal sinus are thickly studded with calcareous matter. *Presented by Sir Stephen L. Hammick.*

2133 A. A small, globular, fibrous tumour, about the size of a cherry-stone, growing upon the internal surface of the dura mater covering the anterior face of the petrous portion of the right temporal bone.

Series XLIII.—INJURIES AND DISEASES OF THE SPINAL CORD.

2159 A. The greater part of a spinal cord, into the substance of which blood has been effused. An incision has been made in the middle line along its

anterior surface, showing a large dark-coloured clot situated between the origins of the third pair of dorsal nerves, and another still larger clot about an inch lower down. The substance of the cord around these clots was somewhat softened, and it was more or less infiltrated and stained with blood from opposite the third cervical to as low as the last dorsal vertebra.

From a gentleman, 44 years of age, stout, but of active habits and rather a free-liver, subject to occasional attacks of gout, but otherwise in good health, who, on the 10th of May 1849, having been during the day much engaged in business, after a late dinner went to bed at half-past eleven, and was almost immediately seized with spasms in the stomach, and complete loss of sensation and power of motion in the lower half of the body. When seen, about midnight, he was found shivering in bed; his intellect quite clear; he had perfect use of his arms, though complaining of pain in the wrists, but complete paraplegia of the whole of the body below the third pair of ribs, and strong priapism. No excito-motory actions could be induced. After the circulation was restored, the treatment consisted chiefly in cupping between the shoulders, a blister to the nape of the neck, purgatives to unload the bowels, and frequent doses of calomel. The priapism subsided in about twenty-four hours. There was no extension of the paralysis, except a feeling of numbness, and finally some imperfection in the power of using the hands. The respiration gradually became embarrassed, and he died exactly four days after the seizure, his intellect remaining unaffected until the last few hours.

The spine was examined seventeen hours after death. The muscles of the back were much loaded with blood. No fluid escaped on opening the theca vertebralis. The vessels on the surface of the cord were much congested. The other morbid appearances are shown in the preparation.

Presented by T B. Curling, Esq.

Series XLIV.—INJURIES AND DISEASES OF THE NERVES.

2185 A. A large globular fibro-cellular tumour, removed from the posterior part of the thigh. It has a distinct, firm, fibrous capsule, in close connexion with the posterior surface of which is the sciatic nerve. The nerve is enlarged by a considerable growth of condensed areolar tissue in its sheath and between its filaments. When unravelled, the nerve-fibres were found dilated at intervals into oval or fusiform enlargements, not on the same level in contiguous filaments, but corresponding with more distant ones, all fitting closely into each other, and producing an external appearance of a general and uniform increase of size in the nerve.

2185 B. The upper part of the same sciatic nerve, partially unravelled below.

2185 C. A portion of the same nerve, in which the areolar tissue has been removed from the nerve-fibres and the small tumours connected with them.

Series XLV.—DISEASES OF THE NOSE.

2210 B. Two portions of a compact, soft, pale-looking, very slightly vascular, lobulated growth, removed after death from the nasal cavities of a boy five years of age. The non-adherent parts of the surface are smooth and rounded. Its microscopical characters were said to resemble those of a malignant growth.

The patient, after slight obstruction to the nose for a year, was observed to have a blue discoloration across its bridge, followed by swelling, which was at first supposed to be polypus, but afterwards (Jan. 5th, 1850) was opened as an abscess by a surgeon, and some soft substance broken away by the finger behind the soft palate. Portions of similar medullary substance were subsequently removed by the forceps on several occasions. Death took place on the 15th of April, from exhaustion, accelerated by hæmorrhage.

The diseased mass filled the entire cavity of the nose, and extended backwards into the upper part of the pharynx. The walls of the orbits were absorbed, and the eyes pushed out laterally. The palate-plates were absorbed up to the alveolar arch, and the sphenoid bone infiltrated with the morbid growth. The inner surface of the last-named bone, in front of the sella turcica, was rough and inflamed, and the dura mater unnaturally adherent to it, though not altered in structure. The brain was soft and watery, and the body blanched; but all the viscera were healthy.

Presented by Cæsar H. Hawkins, Esq.

Series XLVIII.—DISEASES OF THE EXTERNAL INTEGUMENTS, THE SKIN AND ITS APPENDAGES.

2267 A. A longitudinal section of the anterior part of the foot of a child, with an œdema of the subcutaneous tissues, similar to that of No. 2267. The foot was amputated.

Presented by J. Avery, Esq.

2270 A. A portion of skin from the foot of a woman, 58 years of age, affected with

elephantiasis. The cutis is irregularly thickened, so as to form ridges and bosses, with deep clefts between them. Upon these are numerous large, mostly club-shaped papillæ, covered with thick, brown, horny epidermis, giving to the external surface of the integument its nodulated appearance.

Presented by J. G. Defriez, Esq., Feb. 12th, 1852.

2279 A. Two large, crescentic, lobulated and finely nodulated warty growths, removed from the external labia of a woman. A section has been made of one, showing a solid fibro-cellular basis, from the surface of which radiate processes covered with elongated club-shaped masses, apparently formed of the same tissue.

Presented by John Hilton, Esq.

2279 B. A specimen of precisely similar character, removed from the margin of the anus of a man.

Presented by John Hilton, Esq.

2283 A. A fibro-cellular tumour connected with the skin, being in fact a local hypertrophy of the corium, forming a slight elevation on the surface, of oval shape, two inches and a half long, and one inch and three quarters broad. Microscopical examination showed it to be composed of areolar and elastic tissue.

Removed from the shoulder of a lady. Its duration was fourteen years, and it had not occasioned any pain.

Presented by T. Wormald, Esq.

2283 B. Section of a leg injected, presenting extensive patches of circumscribed hypertrophy of the integument (cheloid), with rounded borders and irregular outline. The larger growths attain a thickness of half an inch, and have a flattened, tuberous surface, shelving gradually at the margins. A section of the diseased portion shows that the change consists of an accumulation of tough, compact, vascular fibrous tissue, similar to, and continuous with that forming the deeper layers of the cutis. The epidermis is not affected (although part of it has become detached in the preparation), except where ulceration has taken place on some of the more prominent parts. The other structures of the leg appear healthy.

From a person 25 years of age. The disease followed scalding with hot oil. The scalded parts were not healed till seven months after the injury. The scars began to "grow up"

about a month after their completion; and eight months afterwards the limb was amputated. The other half of the leg, and drawings taken from it during life, are in the Museum of St. Bartholomew's Hospital.

Presented by Edward Stanley, Esq.

2284 A. The enlarged end of a nose, formed of excessive growth of skin. The sebaceous glands are much increased in size, and mostly distended with secretion.

Presented by J. Avery, Esq.

2287 A. A lobulated pendulous tumour, weighing upwards of half a pound, removed from the margin of the anus of a man about 40 years of age. The bulk of the tumour is composed apparently of fibro-cellular tissue continuous with the deeper layer of the investing integument. The external surface is nodulated and covered with healthy epidermis, except in some parts where ulceration has taken place, probably in consequence of pressure or friction.

Presented by T. B. Curling, Esq., Jan. 13th, 1851.

2291 A. A portion of skin from the back, with a globular sebaceous cyst, about half an inch in diameter, and filled with a dry flaky substance.

Presented by John Hilton, Esq.

2293 A. Portion of a cranium, in which, situated nearly in the middle line, at the posterior part of the frontal bone, is a somewhat circular perforation about half an inch in diameter, at the bottom of a wide, smoothly bevelled excavation caused by the pressure of a sebaceous tumour. The margins of the excavation are slightly elevated above the level of the surrounding bone.

From a girl, aged 17, admitted into the Hôpital Necker, Paris, in November 1842, under the care of M. Lenoir, with a small sebaceous tumour, of the size of a walnut, in the upper and middle part of the frontal region, a little beyond the roots of the hair. This tumour had first been noticed when the patient was 2 years old; it was then very small, and its increase had been gradual. Some years back, an incision was made into it, but the cyst was not removed. In cutting into the cyst, M. Lenoir found that it was lodged in a deep cap-like cavity in the frontal bone, to which it was very firmly attached; the whole cyst was, however, got out. Two days afterwards, erysipelatous inflammation made its appearance about the scalp, and the patient sank on the tenth day after the operation.

Presented by Prescott Hewett, Esq.

Series XLIX.—DISEASES OF THE TESTICLE AND ITS COVERINGS.

2344 A. A testicle and its coverings, from a case of hæmatocele. The walls of the tunica vaginalis are thickened and consolidated with the surrounding tissues, and its interior is lined by a deposit of finely laminated and reticulated coagulated fibrin. A vertical section has been made of the testicle, showing its structure unaltered.

Presented by John Hilton, Esq.

2362 A. A testicle and tunica vaginalis. The cavity of the latter is enlarged; its walls are thickened, and upon its inner surface are some rough calcareous deposits.

2374 A. An hypertrophied right testicle from a Monorchis. It was removed in 1844, by Mr. Page of Carlisle, from the scrotum of a lad, aged 17, who died from injuries received in a steam sawing-machine. When prepared for maceration by cutting away the tunica vaginalis, the testicle weighed two ounces, two drachms, and two scruples. The organ is healthy in structure, and its epididymis was loaded with secretion. Although a careful examination was made, no testicle could be discovered on the left side.

Presented by T. B. Curling, Esq.

2385 A. Section of a large oval tumour growing in and replacing the natural structure of a testicle. The main bulk of the tumour is composed of numerous irregularly shaped, variously sized nodules of translucent, opaline cartilage. The intervals between these are filled up with firm, pale, fibrous tissue, containing numerous cavities or cysts with smooth lining membranes, and in form flattened and adapted to the shape of the surface of the cartilaginous nodules among which they are placed. In the upper part of the preparation are some larger cavities, formed apparently by the softening and disintegration of portions of the substance of the tumour.

Presented by H. Hancock, Esq.

2386 A. Section of a tumour almost identical in structure with 2385 A, but without any cavities resulting from disintegration of tissue.

2386 B. Section of a testicle containing a tumour of similar character, except that the fibrous or fibro-cellular stroma is greatly increased in quantity, the nodules of cartilage and the cysts are less numerous, and the latter are filled with soft, opaque, yellowish-white, homogeneous substance.

Presented by W. Fergusson, Esq.

2389 A. Section of a tumour which had grown in the testicle of an Italian grey-hound. It is of oval form, and externally nodulated. The interior is divided by partitions of fibrous tissue into a number of spherical cysts or loculi, which are mostly filled with solid but soft-looking, white, apparently organized material.

The animal was seven years old. The growth had been observed four years; it was removed by operation.

Presented by T. B. Curling, Esq.

2392 A. Section of a large tumour which had grown in the situation of the left testicle of a man 70 years of age, from whom it was removed after death. The entire tumour, when recent, weighed twenty-three pounds, and measured thirty-three inches and a half in circumference. It is divided into two large lobes by a transverse constriction on the middle of the outer surface. The surface of the section presents, at first view, a uniform general appearance; but a closer examination will detect white, fibrous, curving lines, marking off spheroid or oval portions of the soft-looking, mottled, yellowish fibro-cellular tissue of which the bulk of the growth is composed. This material can, in most cases, be readily turned out by the finger from the enclosing capsule, though in some parts it is more or less incorporated with the denser partitioning wall. Near the middle of the tumour are some irregular cavities, apparently cysts, flattened by the pressure of the adjoining growth.

Presented by John Maskew, Esq.

2429 A. Section of the testicle of a ram, which is enlarged and converted into a mass of granular calcareous matter.

Presented by Dr. Edwards Crisp.

2444 A. A testicle, with a large cyst attached to the head of the epididymis.

This specimen is figured in Mr. Curling's 'Practical Treatise on Diseases of the Testis, 2nd edit. (1856), p. 140, from which work the following description and remarks are extracted:—"A man, aged 53, died in the London Hospital in July 1854. His testicles, being enlarged, were removed. On laying open the tunica vaginalis, I found a cyst containing about four drachms of milky fluid attached to the head of the epididymis in both testicles. At my request, Mr. Quekett inserted a tube into the vas deferens, and injected the glands with mercury. The metal passed into the epididymis, and escaped freely into the cyst attached to it in both organs. The ducts of the epididymis, loaded with mercury, were found ramifying over the walls of the cyst, having been drawn out and expanded by the growth of the hydrocele. On examination of the interior of the cysts, the open mouth of the duct from which the mercury had escaped was distinctly visible. There was an oval opening in the membrane of the cyst, the edges of which were even and rounded; and at a point in the centre of this opening, globules were seen escaping from a minute aperture in one of the ducts. The open mouth of the duct, into which a bristle has been passed, may be distinctly seen in the preparation.

"The examination of these two testicles affords the true solution of the difficulty which has hitherto existed in satisfactorily accounting for the presence of spermatozoa in encysted hydroceles. It appears that as the hydrocele increases in size, the delicate tubes are drawn out and extended over the cyst, a position in which they are peculiarly exposed to accidental rupture. That the opening was of old standing, and not produced by the pressure of the column of mercury, is shown by the character of the aperture."

Presented by T. B. Curling, Esq.

Series L.—DISEASES OF THE SCROTUM.

2467 A. A portion of the scrotum of a negro affected with elephantiasis. The disease consists of an excessive growth of fibro-cellular tissue resembling in appearance, and continuous with, the deeper layers of the cutis. The open mouths of several large vessels in the section show the vascularity of the tissue. The epidermis is in a normal condition.

Presented by Robert Allan, Esq., Surgeon 17th Regiment, July 13th, 1853.

Series LIII.—INJURIES AND DISEASES OF THE URETHRA.

2529 A. A bladder and penis, laid open from behind. About two inches from the external orifice is a close annular stricture, not longer than if occasioned by a fine cord tied tightly round the urethra. The constricted part has not been laid open by the incision, and has a bristle passed through it. Behind it the canal is enlarged, and its lining membrane is thickened, softened, and, in some places, rough and shreddy. There is indication of a second stricture, about two and a half inches behind the first. The prostate is enlarged, and the walls of the bladder are of abnormal thickness.

Presented by Sir Stephen L. Hammick.

2529 B. The terminal portion of a penis, in which is a close stricture of the urethra, apparently formed by the thickening and contraction of the submucous tissue about an inch in extent, and commencing three quarters of an inch behind the external orifice. There is a fistulous opening leading from near the middle of the constricted part to the inferior surface of the penis.

From a man 49 years of age, known to have suffered long from stricture. For five years before his death, the urine was voided in a small stream, and latterly only by drops.

Presented by Sir Stephen L. Hammick.

2530 A. A bladder and penis. About half an inch anterior to the bulb of the urethra is a narrow stricture, capable of admitting a bristle only, and about three tenths of an inch in length. The constriction is caused by dense fibrous tissue, arranged in bands intersecting each other in various directions beneath the mucous membrane. The urethra behind the stricture is somewhat dilated, and was more vascular than in health. The bladder, which has been everted, is thickened and fasciculated. Bristles are placed in the openings of the ureters and ejaculatory ducts.

From a cab-driver, 37 years of age. Eight or nine years before his death, a pair of

horses, passing down a passage in which he was standing, forced him violently against the wall, immediately causing great pain in the lower part of the belly. He was unable to work for three months, but had no medical attendance. Shortly afterwards he felt much difficulty in passing urine, and subsequently occasionally suffered from retention, especially when exposed to wet and cold. During the last twelve months he had been much out of health, complaining of pain in the head, giddiness, pains in the loins, &c., and latterly became unable to retain his urine. On the day preceding his death, he was seized with a fit, became convulsed and delirious, and finally comatose. The treatment, which was mainly directed to the brain, appeared to be of no service; and although the urine was continually passing from him, the condition of the bladder was not suspected.

On post mortem examination, it was found that the morbid appearances were chiefly confined to the urinary organs. Each kidney, but especially the right, presented the appearance of a greatly distended sac, more than double the size of the healthy organ. The pelves were enormously dilated, and, on being punctured, were found to contain (by measure) 16 oz. of urine. But a very small proportion of secreting substance remained, in the form of a thin layer surrounding the dilated calices. Both ureters were distended with urine, and equal in calibre to a man's fore finger. The bladder projected above the pubic symphysis, and contained 30 oz. of urine. The condition of the urethra is seen in the preparation. The cause of death was undoubtedly the circulation of urea in the blood, due to incompetency in the kidneys to perform their depurative function.

Additional particulars of the case, and a drawing of the recent specimen, will be found in Mr. H. Thompson's Jacksonian Prize Dissertation on "Stricture of the Urethra" (1852), MS. Roy. Coll. Surg. Library.

Presented by Henry Thompson, Esq.

Series LV.—DISEASES OF THE OVARIES.

2622 A. A large multilocular cystic tumour developed in the left ovary. There are two principal cysts of nearly equal size, which, in their natural position, were placed one above the other. Within the lower one (which is opened towards the front of the preparation) are several smaller, thin-walled cysts, forming spherical and oval elevations upon the inner surface; and its thickened walls are also in many places studded with numerous cysts not larger than pins' heads. Recently deposited lymph coats the lining membrane of this

cavity. The ligament of the ovary and the Fallopian tube are seen at the lower part of the preparation.

From a widow woman, aged 33, mother of five children. Enlargement of the abdomen commenced about a year and a half before her death; and when it had attained an inconvenient size, paracentesis was performed, and about four quarts of a reddish-brown thick fluid were drawn off; but the abdomen was found not to have diminished much in circumference. She died eight days afterwards, of peritonitis; and on examination, the tumour was found to consist mainly of two large cysts, into the lower one only of which the trocar had passed; this contained two quarts of dark-coloured thick fluid, like that drawn off during life; the upper one contained three quarts of clear pale serous fluid. The uterus and right ovary were healthy.

Additional particulars will be found in Mr. T. S. Lee's Jacksonian Prize Dissertation "On Tumours of the Uterus and its Appendages" (1845), MS. Roy. Coll. Surgeons' Library.

Presented by Thomas Safford Lee, Esq.

Series LVII.—DISEASES OF THE UTERUS.

2653 A. A median section of the pelvic organs of a female, in which, by a complete prolapse of the vagina, the uterus is drawn down from its normal position, so that the os opens upon the surface of a mass projecting between the labia, formed by the walls of the everted vagina. The uterus is small, and appears otherwise healthy. The base of the bladder is slightly dragged downwards with the uterus. Bristles are placed in the orifice of the ureter, the urethra, and the os uteri.

Presented by John Hilton, Esq.

2654 A. A vagina, uterus, and appendages. The fundus of the uterus is everted, and protruded through the os, forming, in the upper part of the vagina, an oblong rounded tumour, three-quarters of an inch in length, an inch and a half in transverse diameter, and about four inches in circumference at the widest part, close to the os. The anterior lip of the os uteri, thin and narrow, rests on the tumour without constricting it; the posterior is flattened and indistinct. The Fallopian tubes, and round ligaments, are drawn

inwards and downwards with the fundus. In the left ovary is a cyst, the size of a small hen's egg, which contained a sanguineous fluid. There are some few fibres of lymph between the adjacent surfaces of peritoneum covering the depressed fundus. When the parts were recent, it was quite impossible to reinvert the uterus.

This specimen is figured in the thirty-fifth volume of the 'Medico-Chirurgical Transactions' (1852), with a detailed history of the case, of which the following is an abstract:— Mrs. A. B., aged 25, was confined with her first child on the 23rd April, 1850. Up to that date she had enjoyed good health, and had passed through the term of her pregnancy with less than the usual inconvenience. The labour proceeded well under natural presentation for fourteen hours, when the pains nearly left her. The os uteri being fully dilated and yielding, a dose of ergot was given and repeated in an hour. This had its full effect, and in about two hours the head had descended into the pelvis; but the case now became complicated by a loop of funis slipping down in advance of it. With the view of saving the life of the child, the forceps were applied; but, though the delivery was easily effected, it was dead. The placenta was expelled in a few minutes without assistance, and the uterus contracted well. After the lapse of an hour, hæmorrhage took place, and the patient became very faint; but the medical gentleman then in charge stated that, before he left her, all bleeding had ceased, that the uterus was firmly contracted, and that everything was right. She passed a comfortable night, and for the next three days all went on satisfactorily. The bowels were moved on the third day by medicine; but a few days afterwards she stated that the action was attended with much straining and pain, and that she felt as if something had come down with the motion, but without giving her great inconvenience. On vaginal examination, it was now discovered that the uterus was inverted, the fundus having descended to within an inch or two of the labia; but no unusual discharge or hæmorrhage had taken place since the day of delivery. An attempt was at once made to reduce it with as much force as was considered justifiable, but without success, and the treatment henceforth chiefly consisted in astringent applications to restrain the copious hæmorrhage which took place at almost every menstrual period, rest in the recumbent position, and tonics to support the general strength. The anæmia, debility, and emaciation, however, gradually increased until her death, on the 10th of November 1851.

Presented by J. G. Forbes, Esq.

2661 A. A uterus, with three or four small flattened club-shaped mucous polypi attached to its inner surface. There are also several fibrous tumours imbedded in the walls of the uterus near the fundus.

From a woman, 63 years of age, who died from hepatic disease and ascites, without having presented any uterine symptoms.

Presented by Thomas Safford Lee, Esq.

2663 A. A portion of a finely lobulated growth removed from the posterior part of the cervix uteri during life. A microscopical examination of the lobules, when recent, showed that they were composed of nucleated cells with a few blood-vessels, but no fibrous tissue, and covered externally with epithelial cells, resembling those of the adjoining mucous surfaces.

From a married woman, aged 40, who had had seven children and seven miscarriages. A rugous condition of the posterior lip of the os uteri was first detected on June 16th, 1843. On the 21st of February 1845, the growth had attained the size of a small orange, and, on examination with the speculum, appeared like the top of a cauliflower, hard and firm to the touch, attached by a broad base, and covered with a sanguineous discharge. At this date it was removed by the scissors; a small piece, however, appears to have been left. The patient recovered from the effects of the operation, but the tumour rapidly grew. On the 29th of May it had filled and distended the whole of the vaginal canal, and at the date of her death (September 19th), from pulmonary disease, protruded between the labia.

The details of the case will be found in the Jacksonian Prize Dissertation on "Tumours of the Uterus," by T. S. Lee, London, 1847, p. 96.

Presented by Thomas Safford Lee, Esq.

2665 A. A uterus, with numerous spherical fibrous tumours occupying nearly every part of its walls. The cervix is the only part free from them.

From a woman, aged 57, married, but childless.

Presented by Francis Clarke, Esq.

2673 A. A uterus, with a large, flattened oval tumour attached to the external surface of its fundus. The long diameter of the tumour is placed across the cavity of the pelvis. Its structure is apparently softer and more homogeneous than that of the ordinary fibrous tumour, and it contains a cyst near one of its extremities. The condition of the uterus shows that it had very recently been pregnant.

Presented by R. R. Robinson, Esq.

2675 A. A uterus, to the superior external surface of the fundus of which a large, lobulated, composite fibrous tumour is attached. It is of oval form, the greatest diameter, about six inches in length, being from before backwards.

Presented by John Foote, Esq.

2681 A. The section of a uterus, from the internal surface of the posterior wall of which a large pear-shaped, broadly pedunculated fibrous tumour has grown, distending the cavity, and projecting into the vagina.

Presented by Dr. Chambers.

2699 A. A uterus, with the adjacent parts. The cervix and os uteri, upper part of the anterior wall of the vagina, and the corresponding part of the posterior wall of the bladder have been destroyed by the deposition and subsequent breaking down of cancerous material within them, causing a large opening between the vagina and bladder, the tissues around the edge of which are softened, flocculent, and shreddy. The fundus of the uterus is unaffected by the disease.

Presented by R. R. Robinson, Esq.

Series LIX.—INJURIES AND DISEASES INCIDENTAL TO GESTATION AND PARTURITION.

2718 A. A uterus, with the Fallopian tubes and ovaries. The middle portion of the left Fallopian tube is dilated into an oval cyst, filled with coagulated blood, in the anterior wall of which is a ragged opening, through which the small fœtus suspended to the preparation had escaped. Clots of blood are adhering to the uterine ligaments and the peritoneum. The uterus is enlarged as in the early stages of pregnancy, and when recent was said to have been "vascular with a slight decidua." The os uteri was closed by a gelatinous secretion.

E. H., aged 36, of High Ham, in the county of Somerset, married and the mother of one child, on the 18th of August 1859, whilst gleaning in the harvest-field and carrying a heavy burden, suddenly became faint and fell down. She was found in this state by her neighbours, and carried home. When seen soon after by her medical attendant, she was suffering from great exhaustion, perfectly conscious, and did not complain of pain, except a little at the pit of the stomach, which had existed for several weeks, and for which

she had been taking medicine from a druggist. There had been no vomiting. Stimuli were administered, warmth applied to the extremities, and an aperient ordered. On the following morning she was found with a perfectly bloodless countenance and a feeble fluttering pulse, but without any pain. In the course of the day, while being lifted on to a night-stool, she expired. When the abdomen was opened at the post mortem examination, a fœtus, scarcely two inches in length, was found floating in serum above an immense coagulum of blood, which filled the pelvis and lower portion of the abdomen. The viscera generally were healthy, but bloodless.

Presented by John Prankerd, Esq.

2719 A. A female fœtus, removed from a cyst situated in the right side of the abdomen, six months after completion of pregnancy. The length of the child, from the top of the head to the soles of the feet, is two feet; from the same point to the umbilicus, ten and a half inches. Its weight was four pounds three ounces. The urachus and umbilical vessels were open. There was much meconium in the intestines. The nails are long and well developed. The head is well covered with fine, long, and light-brown hair. The parietal bones were slightly displaced, and overlapped by the occipital and frontal bones. Both cornea were opaque, and the eyes shrunken. There was no offensive odour nor sign of decomposition, except that the cuticle peeled off in large flakes.

The mother of the child, aged 28, had been married eight years, but had never been pregnant before. In February 1859, menstruation ceased; in June the movements of the child were felt, and the breasts began to enlarge; in the beginning of November, when the confinement was expected, a discharge took place from the vagina, and blood and pieces of flesh-like substance were expelled in gushes; in the following February, menstruation recommenced, and soon after the secretion of milk ceased. On her admission into the London Hospital, a hard oval tumour was felt, principally on the right side of the abdomen, extending from above the umbilicus to the right side of the symphysis pubis. On the 31st of May, the operation of gastrotomy was performed by Mr. Adams. An incision, five inches in length, was made in a vertical direction over the most prominent part of the tumour, the peritoneum was opened, and the surface of the tumour brought into view, presenting a glistening aspect, and only slightly adherent at this part. On opening the cyst a pint of greenish-yellow, transparent fluid escaped, with yellowish flakes of *vernix caseosa* and some hairs. The fœtus, found lying with the head uppermost, and the face towards the spine, was extracted. The placenta, being adherent, was allowed to remain; the funis was divided, the attached portion being placed in the wound, which was then closed by interrupted sutures. The patient recovered completely. There remained for some time a small fistulous opening, from which pus was discharged, but ultimately it closed up. The funis, which on its

first appearance during the operation, was thick and œdematous, shrivelled up, and was altogether lost sight of on the fifth day after the operation, having probably escaped among the discharges.

The case is reported in the 'Medico-Chirurgical Transactions,' vol. xliv. p. 1.

Presented by John Adams, Esq., June 1st, 1860.

2719 B. Part of the abdomen of a fowl, in which three ova, instead of being received into the oviduct, have escaped into the peritoneal cavity, where they have become coated with lymph, and have contracted adhesions to the neighbouring parts. On one ovum there is a single band of adhesion, which has become much elongated, forming a narrow pedicle, an inch and a half long, by which alone it is attached to the abdominal wall.

Presented by W. B. Tegetmeier, Esq., June 2nd, 1854.

2733 A. The lower end of the tibia of a calf, which had been fractured *in utero* some time before birth. The two fragments are at an acute angle with each other, and the sharp end of the lower one has perforated the skin. There is no osseous union. From the margins of the wound an abundant crop of pyriform pedunculated bodies has sprung up, the largest being about the size of a small grape; they are of a dark brown colour, smooth on the surface, and solid within, being composed of fibro-cellular tissue. The calf was born alive, but immediately killed.

Presented by Robert Palk, Esq.

2734 A. A fully developed placenta, to the side of which was attached a large mass of pedunculated cysts, the so-called "Hydatids" of the chorion.

2734 B. Portion of the mass of pedunculated cysts attached to the above placenta.

The following history of the case is extracted from an account published in the 'Lancet' (1846), vol. i. p. 430, by the donor:—"On Monday, March 30th, about six o'clock P.M., I was called to Mrs. B———, aged 23, in labour with her second child. On examination *per vaginam*, I found the os uteri dilated, and the head presenting; but the presentation was by no means distinct, and was ascertained with some difficulty, because a soft pulpy mass (evidently not the placenta) intervened between the presenting part and my finger. After a few pains, the membranes ruptured, at which time I heard a very peculiar crackling noise,

and on again examining my patient, the infant's head had passed below the pulpy mass, which was now beyond my reach. The labour progressed very favourably, and the child, which was small, was born in less than two hours after my arrival. After waiting some time, it became necessary to remove the placenta. When the hand was introduced for that purpose, the uterus was found distended by what afterwards proved to be hydatids, measuring about three pints. They were in clusters, like bunches of grapes, some of them being the size of hot-house grapes, but others, and by far the greater number, of the size only of the common blue cluster-grape. When the placenta was detached, we found it lobulated, and of an average size; the hydatids appear to have been attached to a part of its margin, as well as to the uterus.

"The patient is going on very well; no untoward symptoms have yet shown themselves. It should be remarked that there were no unusual symptoms during the progress of her pregnancy."

Presented by George Yeates Hunter, Esq.

2734 c. Portion of a chorion, covered over with numerous clustered and pedunculated pellucid vesicles or cysts, ranging in size from that of a pin's head up to a grape, constituting the disease commonly known as "Hydatids" of the chorion.

From the Museum of John Heaviside, Esq.

2734 d. A portion of an umbilical cord, which was found at birth tied in a knot.

Presented by Dr. P. B. Ayres.

2734 e. A similar specimen.

Presented by R. R. Robinson, Esq.

2737 a. A portion of the posterior wall of a uterus, on the outer surface of which is a large, irregular laceration, extending only through the peritoneal coat, and into some large veins, as large as goose-quills. The course of these veins may be traced by the bristles, which are passed into their ruptured ends, and out at the cut edges of the uterine wall.

From a very fat lady, 29 years of age, who died at the full period of her first gestation. Parturition pains had commenced, she became increasingly faint and blanched, and died in sixteen hours. The peritoneal cavity was found almost full of coagulated blood, with scarcely any serum. The only source of hæmorrhage discovered was the laceration on the inferior posterior part of the uterus seen in the preparation. Air introduced into the large

veins of the uterus freely escaped at the opening. The fœtus was fully developed; the membranes had not been ruptured.

Presented by J. Hilton, Esq.

Series LX.—DISEASES OF THE BREAST.

2776 A. A large lobulated tumour removed, with a portion of the overlying integuments, from the breast. The section of the tumour shows a homogeneous greyish basis, intersected by numerous curved bundles of shining white fibres, as in the ordinary "fibrous tumour." A large, deep ulcer in the integument, over the most prominent part of the tumour, leaves exposed a portion of the surface of the growth about the size of a halfcrown piece.

From a lady, 49 years of age. The tumour had been growing for upwards of five years at the time of excision. The wound healed readily, and the patient lived for several years afterwards, without any return of the disease.

Presented by Sir Stephen L. Hammick.

SPECIMENS PRESERVED IN THE DRY STATE IN CABINETS.

Series LXIV.—INJURIES AND DISEASES OF BONES.

2851 B. The base of a skull, of which all the bones are exceedingly thin and light. The body of the sphenoid is much atrophied, and the posterior clinoid processes are scarcely developed; the lesser wings, with the anterior clinoid processes, were altogether absent, or were so delicate as to have been lost in maceration; and the posterior portion of the greater wings are so deficient as to leave on each side a large aperture, in which are included the foramen lacerum me-

dium, the carotid canal, the foramen ovale, and the foramen spinosum. The foramen magnum is unusually large. The skull is somewhat distorted, its posterior part being twisted to the left, and the right condyle being lower than the other. Very numerous and complex ossa triquetra are developed in the lambdoidal suture, especially on the left side. The bones of the face are atrophied in a similar manner to those of the cranium.

From a youth, 19 years of age, who entered the naval service about three months before his death. He was considered by his fellow-seamen to be "half-witted." He seldom went into his hammock, but lay on deck between the guns, and never washed unless threatened with punishment. His intellect continued to diminish, and at length, his habits becoming more dirty, and his person offensive, he was flogged. Large sloughs upon the sacrum, nates, and back resulted. He was then sent to hospital, where, having become comatose, and passing fæces and urine involuntarily, he died in three days. His friends stated that he was able to read and write, and take care of himself, and that, although always delicate, he had no deficiency of intellect before going to sea.

Presented by Sir Stephen L. Hammick.

2855 A. The skull of a Monkey, of the genus *Macacus*. All the bones, especially those of the face and upper part of the cranium, are greatly increased in bulk, and are of a uniform, light, porous, friable texture. There is no distinction between the diploë and the tables of the cranial bones. The petrous portions of the temporal bones are least affected by the disease. The deciduous teeth are in process of being replaced by the permanent set.

Presented by T. H. Stewart, Esq.

2858 A. The upper part of a skull, which has undergone a change similar to that described in the specimen No. 2858; but it is rather less light and porous, the hardening process (well marked in No. 2859) having already taken place to a considerable extent, especially on the inner surface. The average thickness of the walls is three quarters of an inch, and the channels for the meningeal arteries are very deeply marked.

2872 A. The right femur, tibia, and fibula of an adult, exhibiting changes consequent upon rickets in early life. The femur is curved forwards, and its neck depressed, so as to form little more than a right angle with the shaft. The

linea aspera is developed into a very prominent ridge. The tibia and fibula are both curved slightly forwards and inwards. The bones are very greasy, but otherwise their texture appears healthy.

2872 B. The left femur, tibia, and fibula from the same person. They have undergone similar changes to the last, in addition to which the femur has been fractured through the lesser trochanter. The upper fragment is firmly united to the lower, but is rotated, so that the great trochanter points backwards, and the head of the bone somewhat downwards and forwards. There are some spiculated outgrowths of bone along the inner half of the line of fracture, chiefly developed from the margin of the inferior fragment; on the outer side the surface is smooth. The tibia and fibula appear also to have been broken about the middle, but have united with scarcely any distortion.

2876 A. A right tibia, the shaft of which is much curved forwards and outwards. There is a recent deposit of new bone upon the middle of the posterior concave surface. The tissue of the bone generally appears healthy.

Found in the burial-ground of the Mill Prison, Plymouth.

Presented by Sir Stephen L. Hammick.

2880 B. The skull of a native of India, with three deep cuts, probably from a sabre, which seem to have been inflicted from above and the right side. The first, three inches in length, is near the middle of the frontal bone; a piece of the bone, bounded on one side by the cut, and an inch and a quarter in breadth, is broken completely out. The second has marked the ascending process of the right malar bone, and then extends through the greater part of the parietal bone. The third passes upwards and backwards from the root of the zygomatic process of the temporal bone, through the squamous portion of the same bone, and the lower part of the parietal, almost to the posterior extremity of the second wound. The portion of the skull situated between the two last is broken into several pieces.

Received from India during the Sepoy rebellion, 1857.

2880 c. A skull, exhibiting two short but deep sabre-cuts, penetrating the entire thickness of the bone. One is in the middle of the left parietal bone, the other at the upper part of the frontal bone, rather to the right of the middle line. The direction of both is the same, obliquely forwards and to the right. At the anterior inferior angle of the right parietal bone, a piece of the outer table is broken or cut away, as is also the contiguous portion of the great wing of the sphenoid.

Found by the donor on the field of Waterloo, five years after the battle.

Presented by Thomas Wormald, Esq.

2885 A. The upper part of the skull of a seaman, who, some time before his death, had received a fracture of the right parietal bone. In the antero-inferior region of the bone is an irregularly oval aperture, about an inch and a half long and one inch deep, with smoothly rounded bevelled edges, from which ossification had commenced to extend into the portion of dura mater which closes the aperture.

Presented by Sir Stephen L. Hammick.

2885 B. The greater part of a skull, in which the posterior and inferior region of the left parietal bone has been the seat of a fracture. A considerable portion of bone has been removed, leaving a very irregular aperture. Above this is another, more circular hole, made by the trephine. The margins of both of these have become rounded and partially healed. Nearly the whole external surface of the cranium, and parts of the inner surface, bear traces of having been inflamed, as shown either by superficial deposition of new bone or by shallow ulcerations. Exfoliation has taken place to a considerable extent on the occipital bone, in some parts implicating its entire thickness.

The injury was occasioned by the patient (a fine, healthy seaman, about 50 years of age), falling and striking his head against a ring-bolt. Although the fracture was not depressed, the trephine was applied a few hours after the accident, as was then (1827) the general custom in such cases. The man died, exhausted by the discharge from the wounds, ten months afterwards. He retained his senses during this period, and for many weeks was able to walk about in and even beyond the wards of the hospital.

Presented by Sir Stephen L. Hammick.

2886 A. The upper part of a skull, with a punctured bayonet-wound through the frontal bone close to the coronal suture, and rather to the left of the middle line. As nearly the whole of the injured piece of bone has been cut out with the trephine, little is seen in the specimen of the original character of the wound, except that on one side the inner table has been broken away to a much greater extent than the outer.

From a private (W. Williamson) of the 68th Regiment, who received, at the siege of Sebastopol, May 11th, 1855, a punctured fracture of the skull, with injury to the brain, from a bayonet. The trephine was used, but the case terminated fatally on the eleventh day.

2899 A. Portion of a skull. From the right side of the frontal bone a large piece, including the superciliary ridge, has been broken or cut off, and displaced outwards. It is firmly united, at the outer side, to the adjacent bone, but in such an oblique position as to leave a large irregular gaping wound on its inner side, immediately above the right orbit. A horizontal, nearly united fissure across the middle of the fragment seems to indicate that it has itself been divided into two portions.

2901 A. Portion of frontal bone from the outer part of the right orbit, detached by a gunshot injury.

The following account of the case is taken from the 'Medical and Surgical History of the British Army in the Crimea,' vol. ii. p. 291:—"A private (Francis O'Brien) in the 4th Regiment, aged 18, was wounded at the siege of Sebastopol, July 24, 1855, by a Minié rifle ball, in the right temple. It had penetrated the skull, and passed downwards towards the right orbit, driving out a considerable portion of the supraorbital ridge, which lay imbedded in the loose cellular tissue of the upper lid, and which, being mistaken for the ball by the medical officer in the trenches, had been by him cut down upon, but not removed. The ball was then supposed to have dropped out of the opening of entrance. No symptom of cerebral disturbance followed the receipt of the injury; and though the sufferer was attacked by erysipelas of the face in the course of two or three days, no serious constitutional disturbance followed. A thin, serous discharge escaped from the wound; and to this fluid, when collected in the small cup-like cavity formed by the passage of the ball through the bone, an evident pulsation was imparted by the brain. About a month after the receipt of the injury, the portion of the bone imbedded in the upper eyelid was removed by the knife; but so firmly did it adhere, that this was a work of considerable difficulty. On the following morning the ball dropped from the wound.

"On the 29th of September he left for England, his state being as follows:—Right eye closed, but whether by ptosis or mechanical obstruction it was impossible to say—probably

by both; right pupil dilated, but, though the sight of that eye was wanting, it contracted when the other eye was exposed to a strong light. The wound in the temple had long healed, but was still most sensitive to the touch; and when excited or fatigued by long standing, a kind of convulsive action of the muscles of the face occurred.

"During the voyage home, he is stated to have had a fit, and was admitted at Brompton Hospital on the 15th of November, 1855. On the 20th of November, and again on the 20th of December, small pieces of bone, portions of the superciliary arch, were removed through the wound in the upper eyelid, which was open on admission at Bromptom. The headaches, from which he had previously suffered much, began to be less severe, and he was discharged, cured, 5th of January, 1856."

Presented by R. V. De Lisle, Esq., Surgeon, 4th Regiment, and J. R. Taylor, Esq., Deputy Inspector-General.

2901 B. A skull, from which the calvaria has been removed, with an extensive comminuted gun-shot fracture. The principal seat of injury is the upper and inner side of the left orbit. Two considerable fragments are displaced from the supraorbital ridge of the frontal bone; above this is a circular opening, made by the trephine. The ascending process of the left superior maxilla is broken off, and driven inwards, with part of the nasal bone. The right nasal bone and both the lachrymal bones are also fractured. The central plate of the ethmoid bone and the crista galli are lost. There is a large opening on the inner side of the roof of the left orbit, and in the posterior wall of the frontal sinus; and a fissure extends across the base of the right lesser wing of the sphenoid bone, and partially across the greater wing.

From a private in the Royal Artillery, aged 23, struck by a piece of shell at the siege of Sebastopol, 1855. On admission into hospital, he was in possession of all his mental faculties, answered questions readily, and had no paralysis of either of the extremities. There was a lacerated wound on the forehead, three inches in length, effusion of blood into the cellular tissue of the eyelids, so as nearly to close them, but no bleeding from the nose or ears. The following day, symptoms of compression of the brain came on; trephining was resorted to, but without relief, and he died in the evening. On post mortem examination, great ecchymosis was found beneath the scalp and into the cellular tissue of the eyelids. The bones were found fractured as seen in the preparation. The crista galli of the ethmoid was held in place by dura mater only. The left anterior lobe of the cerebrum was indented and ecchymosed, close to the olfactory nerve. A small quantity of bloody serum was effused at the base of the brain.

Further details of the case may be found in the 'Lancet,' 1856, vol. i. p. 257.

Presented by Henry Rooke, Esq.

2901 c. The skull, wanting most of the bones of the face, of a Russian soldier. It has a bullet-hole through the centre of the left parietal bone. The perforation is oval in form, seven eighths of an inch in length, wider in front than behind, and its long diameter corresponds with the long axis of the skull. The margin is sharply defined, finely waved or scolloped, without any fissures extending from it. The inner table is removed, to the extent of one eighth of an inch all round the circumference, more than the outer. Some lead adheres to the posterior margin of the hole, partially imbedded in the cancellous tissue of the diploë. There is no second aperture; so it may be presumed that the bullet lodged within the cranial cavity.

Found on the field of battle, Crimea, 1855.

2901 d. Portion of a right parietal bone, which has been perforated by a bullet from without inwards. The pieces broken out by the passage of the ball have all been preserved, and are fixed in their places by wire. The aperture in the outer table is irregularly oval in form, an inch and a half long, and one inch wide. The bone occupying this space is broken into seven pieces. From the inner table a larger piece, of circular form, and divided into four fragments, is split off. A mass of lead, of very irregular shape, is lodged between the fragments at the posterior end of the aperture.

2901 e. The upper portion of a skull, fractured by a rifle-ball. There are two large irregular holes in the left parietal bone, the smaller at the inferior anterior angle, and the larger near the superior posterior angle. In the former the inner table is broken to a greater extent than the outer, and some portions of lead are adhering to the posterior margin; this is the aperture of entrance. In the other opening, formed by the detachment of fragments splintered by the ball striking on the inner surface, the outer table is broken to a somewhat greater extent than the inner. A fissure extends from the smaller through the anterior part of the larger aperture, across the sagittal suture, and through as much as is preserved of the right parietal bone.

From a private (Michael Caffrey) of the 88th Regiment, wounded by a rifle-ball at the siege of Sebastopol, Sept. 8th, 1855. He lived, paralysed and unconscious, twelve days after

receiving the injury. The ball had split on entering the skull; one portion, with a fragment of detached bone, had lodged at the aperture of entrance, and the other was found, at the post mortem examination, lodged within the skull at the upper and back part, where it had produced a circular fracture (the larger opening, as seen in the specimen).

Presented by F. Wall, Esq., Surgeon, 38th Regiment.

2901 F. The upper part of a skull, perforated by a musket ball through the frontal bone, just above the glabellum, a little to the right of the middle line. The aperture made by a piece of the bone being driven completely in is irregularly circular, about three-quarters of an inch in diameter, and larger on the inner than the outer side. Three fissures radiate from it, one of which extends outwards and backwards to the middle of the right parietal bone. The piece of bone which was displaced by the ball, as well as a portion of the ball itself, very much misshaped, are preserved with the specimen.

From a private (Henry Hopecroft) in the 2nd Battalion of the Rifle Brigade, wounded at the siege of Sebastopol, Sept. 8th, 1855, by a musket ball. He lived eight days after receiving the injury. The following extract from a letter from Deputy Inspector-General Taylor to Mr. Guthrie refers to this case:—"A ball struck the frontal bone, depressed some small pieces to the depth of the thickness of the bone, and then appeared to have made its exit about two inches from the point of entrance. The absence of urgent symptoms appeared to indicate this course of the ball. When, however, comatose symptoms set in, this apparent course of the ball was laid open, with a view to examine and raise, if necessary, the depressed fragment. But symptoms of collapse now set in, and further operative proceedings were deemed unadvisable. On post mortem examination, it became apparent that the ball must have been divided by the fractured edge of the bone, one piece coming out at the forehead, the other coursing round the right hemisphere of the brain, between the dura mater and internal table, to a point in the posterior lobe corresponding to the opening of entrance. For the last three inches of this circuitous course the sharp fragment of ball had cut the dura mater, and through this slit there was hernial protrusion of the brain, which had separated the dura mater from the internal table to the extent of three inches in an upward direction. The tense edge of dura mater was deeply depressed in the hemisphere, and the protruded portion of brain had a livid strangulated appearance, so as to be taken, at first, for a large clot of blood. The piece of bullet was found, at the point previously indicated, buried in the cerebral substance about an inch from the surface. Division of the cerebral substance confirmed the fact of this circuitous course of the ball."

Presented by F. Wall, Esq., Surgeon, 38th Regiment, and J. R. Taylor, Esq., Deputy Inspector-General.

2901 G. The posterior half of the base of a skull, in which the occipital bone has

been fractured by a gunshot wound. The principal point of injury is the left side of the bone, between the external occipital protuberance and the lambdoid suture; here the trephine has been used. From this point a fissure extends downwards and forwards, passing close to the left condyle, and terminating in the jugular foramen.

From a private (William Holmes) in the 20th Regiment, wounded by a piece of a shell, at the siege of Sebastopol, August 24th, 1855. The following note accompanied the specimen:—"Symptoms of compression deferred five days."

2901 H. Portion of a skull which has received a bullet wound through the occipital bone, just above and rather to the right of the external occipital protuberance. On the outer and lower margin of the aperture the inner table is broken to a rather greater extent than the outer, and some traces of lead are adherent to it. The original form of the opening in other directions has been obscured by the application of the trephine.

From a private (James Perry) in the 97th Regiment, aged 19, wounded at the siege of Sebastopol, July 7th, 1855. When admitted into the Castle Hospital on the 16th of July, a depressed fracture of the occipital bone was found to exist, and a moveable foreign body was felt by the probe, just inside the skull. The regimental surgeon reported that he had suffered from intermittent fever, with frequent relapses. On the 19th of July it was determined to remove what was thought to be the loose piece of bone within the skull; but on laying the parts open, it was found to be the ball. It could not be removed without the application of the trephine, which was applied so that its edge at one spot overlapped the torcular Herophili, and thus considerable facilities were afforded for the removal of the foreign body and a quantity of comminuted bone which had been driven before it. These were all carefully removed, as well as a portion of the man's cap. The point of a sharp spiculum of bone was found to have penetrated the torcular; and its removal was followed by venous hæmorrhage. This was easily arrested by a small fragment of sponge, and gave no trouble. The dura mater was intact. He went on well till the 1st of August, when he was seized with fever of an adynamic type, with congestion of the lungs, but without symptoms referable to the head; this was the more remarkable, as most of the fevers occurring at that time showed a great tendency to head congestion. From this disease he died on the 7th of August, the wound being nearly healed. On post mortem examination, no traces of inflammation of the brain or of its membranes were found. A small portion of brain-substance appeared wanting, giving the idea that it had been absorbed under the pressure of the bullet. The dura mater was entire and healthy. A minute opening, closed by plastic lymph, existed in the torcular, but the interior showed no trace of inflammation. "It appears probable that this might have proved a recovery from the so much dreaded operation of trephining, but for the intercurrent disease." The above history is extracted from 'The Medical and Surgical History of the British Army in the Crimea,' vol. ii. p. 298.

2901 I. The right half of a skull, with a small perforation, probably made by a pistol-ball, immediately below the temporal ridge on the parietal bone. It is circular in form, a quarter of an inch in diameter externally, but much larger and more irregular in shape on the inner side. Some of the lead from the ball still adheres to its margin. The condition of the sutures and alveoli indicate that the specimen is the skull of an individual of considerable age.

2916 A. The greater part of a right ilium which has received a gunshot fracture. The outer surface of the whole of the posterior border of the bone is broken away, leaving the cancellous tissue exposed; and a fracture passes from rather above the middle of this border, forwards and upwards, to beyond the middle of the crest. This fracture does not extend in all parts completely through the bone, being twice interrupted by a continuity of the inner table; but on the outer side (from which the violence causing it evidently proceeded) it is complete.

From a British soldier, wounded in the trenches before Sebastopol, August 17th, 1855. He was struck on the right side of the lumbar region by a fragment of shell, which tore away his pouch, exploding the ammunition in it, and broke his bayonet into several pieces. There was a flesh wound, one inch and a half in length, a little to the right of the spinous processes of the lower lumbar vertebræ, and the parts around were extremely contused. Profuse suppuration set in from the wound; on the 27th, paraplegia came on; he then sank into a typhoid condition, and died on the 2nd of September. On post mortem examination, the muscles in the lumbar region, on both sides of the spine, were found to be black and softened, as if sphacelated. On the right side the psoas and iliacus were in the same condition, and a large quantity of sanious pus was lodged in the ischio-rectal fossa, as well as in the lower part of the spinal canal. The sacro-iliac synchondrosis was almost completely separated, and the space between the bones was filled with pus. The viscera, as far as examined, were healthy.

Presented by J. R. Philip, M.B., Assistant-Surgeon, 18th Regiment, and J. R. Taylor, Esq., Deputy Inspector-General.

2920 A. A right scapula, which appears to have been fractured and repaired in several places. The various lines of fracture are indicated by ridges of bone in the following situations:—One surrounds the base of the acromion, including part of the spine, as if this portion of the bone had been completely detached. A second, continuous at both ends with the above, passes through

the suprascapular notch, and crosses the anterior costa about an inch below the glenoid fossa, marking off a portion, which includes the head, neck, and coracoid process. A third implicates the anterior costa only, situated about an inch below the last; it can be traced as far as the centre of the bone on both dorsal and ventral surfaces. The fragments are all in very good position, but the glenoid fossa is turned slightly more backwards than usual.

From a dissecting-room subject, without history.

Presented by Thomas Wormald, Esq.

2924 A. A left clavicle, fractured obliquely through the middle of the shaft. The scapular portion has passed behind the sternal one. Firm union has taken place. The bone has been longitudinally bisected.

Presented by Sir Stephen L. Hammick.

2926 A. The acromion process of a scapula and upper part of a right humerus, much shattered by a gunshot injury. The acromion has been separated at its neck from the rest of the scapula, and the articular surface for the clavicle is also broken away. The head of the humerus is uninjured, but separated, at the anatomical neck, from the shaft, the upper part of which is broken into many fragments.

From a British soldier, wounded at the siege of Sebastopol, 1855. Excision of the head of the humerus was commenced, but, in the course of the operation, it was found necessary to perform amputation at the shoulder-joint.

Presented by Dr. R. Lyons.

2926 B. The head of a right humerus, with a musket ball lodged in it. The ball has struck the groove between the greater tuberosity and the articular head of the bone, at its outer and posterior aspect, and is firmly fixed in the cancellous tissue of this part, its surface being on a level with that of the bone. A large part of the tuberosity has been broken away, and a horizontal fissure extends, in both directions, from the principal seat of injury, more than halfway round the margin of the head of the bone.

From a British soldier, wounded at the battle of Inkermann, Nov. 5th, 1854. The head of the humerus was excised at Scutari, where the patient died on the 25th of November, from

tubercle in the lungs and ulceration of the intestines. The specimen is referred to in "A Lecture delivered at the Royal College of Surgeons, April 14th, 1855," by G. J. Guthrie, Esq., F.R.S., 'Lancet,' 1855, vol. i. p. 415.

Presented by G. J. Guthrie, Esq.

2926 c. The head of a left humerus, with a musket ball lodged in it. The ball has struck the top of the anterior portion of the great tuberosity, and is partially imbedded in the cancellous tissue of this part, though the greater portion remains above the surface of the bone. A wide fissure extends obliquely all round the upper end of the bone, passing through the great tuberosity, and across the articular surface.

From a private in the Rifle Brigade, aged 21, who received a gun shot injury of the shoulder, at the siege of Sebastopol, July 11, 1855. On the 19th the head of the humerus was excised, and the ball was found impacted in it. The healing process went on most favourably, and the man was discharged upon the 26th of August, quite well, for the purpose of proceeding to England.

Presented by W. H. MacAndrew, M.D., Surgeon, 57th Regiment.

2926 d. The head of a right humerus, with a conical rifle ball lodged in it. The ball has entered the anterior portion of the greater tuberosity, and is imbedded in the cancellous tissue, its base being on a level with the surface of the bone, and its apex directed downwards and inwards. The bone is much shattered, fissures extending in various directions from the situation in which the ball is lodged; and several large portions are completely detached.

From a private in the 57th Regiment, aged 21, wounded at the siege of Sebastopol, June 1855, by a rifle ball, which struck the head of the humerus, but did not touch the glenoid cavity. Upon the 22nd the head of the bone was excised; and upon the 26th of August the man was discharged from hospital, quite well, for the purpose of proceeding to England.

Presented by W. H. MacAndrew, M.D., Surgeon, 57th Regiment.

2926 e. The upper end of a right humerus, which has received a gunshot fracture. The shaft immediately below the neck is split longitudinally in many pieces, some of which are driven into the cancellous structure of the interior. Most of the lines of fracture terminate above at the junction of the shaft with the

ununited epiphysis; one, however, on the posterior surface runs nearly to the centre of the articular surface.

From a British soldier, wounded at the siege of Sebastopol, 1855. The portion of bone forming the preparation was excised.

Presented by J. R. Taylor, Esq., Deputy Inspector-General of Hospitals.

The four following specimens are described by J. B. Hodgson, Esq., in the Guy's Hospital Reports, 2nd series, vol. vii. p. 272. *They were presented to the College by Mrs. Hodgson, May 7th,* 1854.

2955 A. The upper part of the left femur of a woman, 75 years of age, fractured through the neck eight years before death. Complete bony union has taken place; the neck is shortened and somewhat thickened; the lower fragment, which includes both the trochanters, is rotated outwards, so that the posterior upper angle of the great trochanter is but a quarter of an inch from the articular surface of the head; a projecting ridge marks the line of the fracture on the anterior surface of the neck, but any irregularity that might have existed on the inner side has been obliterated by time and the perfect manner of the union.

Sarah S., aged 67, in November 1841 was knocked down by a boy running against her, and fell on the hip. The limb was disabled, shortened three quarters of an inch, and very decidedly everted. It was easily reduced to its proper length and position, and was maintained for fourteen weeks upon a double inclined plane made of pillows sewed together. After six months she was able to walk without crutches, and there was no observable shortening. She died in October 1849.

2955 B. The upper portion of the right femur of a woman, 90 years of age, fractured through the neck, fifteen weeks before death. The line of fracture extends vertically across the neck, the upper end being close to the margin of the head. At the lower part the inferior fragment is impacted to the extent of a quarter of an inch within the superior; here bony union has taken place. The neck is shortened, probably in consequence of old age.

Mrs. N., aged 90, on the 22nd of September 1841, had a fall on the hip; the limb was immediately disabled, everted, and shortened. She was placed in bed, with the limb

extended over a double-inclined plane formed of pillows. Bed sores supervened; she sank apparently from decay of nature, and died on the 6th of January 1842.

2955 c. The upper portion of the left femur of a woman, 81 years of age, fractured through the middle of the neck, three years before her death. Firm bony union has taken place; but the neck is so much shortened, either by impaction or absorption, or both, and the shaft is so much rotated outwards, that scarcely any interval exists between the posterior intertrochanteric line and the border of the articular surface of the head. The superior margin of the lower fragment forms a prominent ridge in front, about an inch above the intertrochanteric line.

Ellen R., aged 78, on the 3rd of July, 1847, fell on her hip, was unable to rise, and on examination was found to present the usual signs of fracture of the cervix femoris. She was treated as in the above cases, being kept five months in bed. In a year she was able to walk, but the limb was shortened and everted. She died in July 1850, from malignant ulcer of the opposite thigh, from which she was suffering at the time of her fall.

2955 d. The upper part of the right femur of a man, 75 years of age, fractured in two places, two years before his death, and firmly united by bone. The upper fracture passes obliquely across the neck, from the upper and back part to the anterior intertrochanteric line, at which part the lower edge of the upper fragment makes a considerable projection downwards and forwards. Owing to the oblique position of the fragments, the space between the head of the bone and the great trochanter is much diminished. In the section, a line of more compact bone across the cancellous structure indicates the situation of this fracture. On the superior and anterior surface of the neck is a considerable deposit of new bone. The lower fracture extends obliquely through the upper third of the shaft, commencing on the outside, two inches below the great trochanter, and passing downwards and inwards about four inches. There is considerable displacement, the end of the lower fragment being lifted to within half an inch of the trochanter.

Joseph B., aged 73, on the 6th of May 1848, while carrying two pails of water into his cottage, tripped against the threshold and fell; he immediately felt pain in his hip, and found that the leg was powerless. On examination it was ascertained to be shortened and everted, and presented the general symptoms indicating fracture of the cervix femoris.

After remaining six weeks in bed, he imprudently attempted to get up, and in doing so fell and struck his hip, feeling at the same time something break: this was probably the lower fracture. The limb was ultimately shortened three inches, and he was never able to bear his weight upon it. He died July 1850.

2955 E. The upper part of the right femur of a woman 74 years of age, which appears to have been fractured through the neck some time before death, and to have completely reunited. The neck is much shortened, and the head approximated more closely than usual to the posterior intertrochanteric line. A strongly marked ridge, crossing the middle of the neck in front, indicates the line of fracture in this situation. The bone is thin, soft, and very greasy in texture on the posterior part of the head and neck, so that it may be indented by slight pressure.

The following account of this specimen is extracted from Mr. J. B. Hodgson's manuscript:

"Mrs. Rebecca M., aged 64, on the 21st January 1842, slipped down in her pattens, fell on her hip, and was unable to rise; the foot was everted, the limb shortened, &c. She was kept on the double-inclined plane of pillows four months. At the end of five months was able to walk with crutches. The foot was everted, but the limb was not distinguishably shorter than the other.

"August 1843, examined this woman again, and she can walk well for her age; the leg is not perceptibly shortened, but the foot is everted.

"*Post mortem Examination*, January 1852.—The right leg everted and shortened. On taking out the femur, fracture was found within the capsule; the head sunk, from absorption of the neck, into the intertrochanteric space, so that the top of the head is one-eighth of an inch below the level of the top of the trochanter; the same rotation of the head backwards exists as in all the cases; the line of fracture is also, as in the others, smooth and depressed behind, projecting and rough in front; the space between the lower margin of the head and the little trochanter is about three-fourths of an inch, in the healthy limb it is one and a half inch; between the posterior margin of the head and the great trochanter half an inch, in the sound limb one inch. The anterior and inferior third of the head, which from its altered position no longer bore upon the acetabulum, had suffered absorption of its cartilage, but had become covered by a smooth, fibrous investment, continuous above with the round ligament. The left cervix is in a normal condition and position, and shows no absorption of the neck, or altered position of the head, and both bones are tough and healthy for the age."

Presented, with the preceding four specimens, by Mrs. Hodgson.

2959 B. The upper part of a right femur, which has been fractured through the trochanters. The shaft has been drawn upwards and rotated outwards, and

is now united at an acute angle with the neck, the great trochanter being considerably above the level of the head. The fracture appears to have been comminuted, but the consolidation is so complete that its exact seat is not readily defined. The articular surface of the head is roughened by deposits of new bone.

2965 A. The upper end of a left femur, sawn off from the shaft one inch below the lesser trochanter, having an oblique fracture extending from the middle of the posterior surface of the neck, downwards and forwards, to the anterior surface of the shaft, four inches below the top of the great trochanter. The upper fragment includes the head, the greater part of the neck, the great trochanter, and a part of the shaft below this prominence. The posterior margin of the great trochanter, to the extent of an inch and a half in length, has been broken away, leaving the cancellous tissue of its interior exposed.

From a private in the 68th Regiment, aged 23, struck on the left hip by a fragment of shell, at the siege of Sebastopol, August 19th, 1855. The wound, nearly an inch in length, extended down to the bone, which was distinctly felt to be fractured. As the joint was supposed to be injured, excision of the upper end of the femur was performed. The patient was discharged on pension nine months after, and had a tolerably useful limb.

Presented by J. C. O'Leary, Esq., Surgeon 68th Regiment.

2965 B. The upper portion of a right femur, exhibiting an oblique fracture, passing through the great trochanter, downwards and inwards, to an inch and a half below the lesser trochanter. The whole of the great trochanter and a portion of the shaft below it are broken away and absent from the preparation.

From a British soldier, wounded at the siege of Sebastopol, 1855.

2965 C. The upper fragment of a fractured right femur. The plane of the fracture commences above, at the outer side of the great trochanter, and extends downwards and inwards to two inches below the lesser trochanter. Nearly the whole of the great trochanter is broken away, but the head and neck of the bone are uninjured.

The wound was probably caused by a fragment of shell. The specimen was received from the Baltic during the war with Russia, 1854.

2965 D. The upper half of a right femur, which has received a gunshot fracture, probably from a fragment of shell. The larger portion of the great trochanter and the adjoining part of the neck of the bone are broken away; and a very oblique fracture extends through the shaft, the plane of which passes from immediately below the anterior surface of the great trochanter, downwards and backwards, to the middle of the linea aspera. The head is uninjured.

From a British soldier, killed at the siege of Sebastopol, September 8, 1855.

Presented by J. R. Taylor, Esq., Deputy Inspector-General.

2965 E. The upper half of a left femur, which has received an extensive comminuted gunshot fracture, extending from the lesser trochanter obliquely downwards and outwards. Union has taken place between the principal fragments and three or four smaller detached pieces, much new bone being thrown out between them. The injury being rather recent, the consolidation is not very firm. The upper fragment, including the head, neck, great trochanter, and three inches of the outer side of the shaft, has united to the lower portion in an extremely oblique position, the axes of the two forming an angle of about 130°.

From the Crimea, 1855.

Presented by J. R. Taylor, Esq., Deputy Inspector-General.

2965 F. The upper half of a left femur, which has been broken obliquely through the upper part of the shaft. The plane of fracture is parallel with, and two inches below, the intertrochanteric line. A longitudinal fissure extends from this, down the outer side of the shaft for two inches and a half, where it meets another slight transverse fissure.

Probably caused by a gunshot injury, as the specimen was received from the Crimea during the war with Russia, 1855.

2976 A. The lower portion of the right femur of a gentleman upwards of 70 years of age, fractured nine years before death. The plane of fracture extends obliquely from the posterior surface of the shaft, five inches above the condyles, downwards and forwards, to immediately above the articular surface.

There is great displacement, the lower fragment being drawn upwards and backwards; it is not in immediate contact with the upper, but is firmly united to it by three strong bridges of bone; it is also slightly rotated outwards.

The injury was occasioned by falling down a flight of stone steps. Both bones of the left forearm were also fractured, and several other minor injuries received. The leg was placed upon a pillow, and long straight splints applied, during a period of several months. After his recovery, the patient was able to walk about on a high-heeled boot with a stick.

Presented by B. Travers, Jun., Esq.

2977 A. The lower half of a left femur, which has received a comminuted gunshot fracture near the junction of the middle and lower thirds. The bone has been splintered into many fragments, most of which are now united to each other and to the main fragments by a considerable deposit of nodulated and porous new bone. One of the pieces, two and a half inches long, is interposed between the ends of the principal portions, nearly at a right angle to the axis of the shaft. At various points in the extremities of the fragments necrosis has taken place, and the bone thus affected is in process of separation.

From a private (John Sheehan), aged 19, 57th Regiment, wounded in the left thigh, at the siege of Sebastopol, June 18th, 1855. The wound presented two openings, an anterior and a posterior; the finger, passed through the latter, detected several fragments, which were removed, and a tolerably uniform surface was then felt. It was determined to make an attempt to save the limb. It was accordingly bound up with a long splint, and matters promised favourably for a time. He, however, complained of much pain in the limb from time to time, gradually wasted, suffered from diarrhœa, and finally sank on the 6th of August. On examination the chief organs were found in a normal condition. There was some congestion of the ileum, and the colon presented a few points of ulceration. In the left lower extremity, beneath the integuments, all the muscular and other textures, from the seat of injury to the groin, were converted into a soft, broken-down, black, rotten mass.

Presented by Dr. R. D. Lyons.

2978 A. Portion of a right femur, which has received a comminuted gunshot fracture rather above the middle of the shaft. The upper and lower fragments are united very obliquely to each other through the medium of a splinter six inches long, detached from the inner side of the bone. Some smaller pieces have also been separated; but the whole has been consolidated by a

considerable deposit of new bone of spongy texture. The projecting ends of the principal fragments are rounded off.

From the Crimea, during the war with Russia, 1855.

Presented by J. R. Taylor, Esq., Deputy Inspector-General.

2978 B. A left femur, which has received a gunshot fracture about the middle of the shaft. A considerable portion of the great trochanter is also broken away; and there is a longitudinal fissure between this and the lesser trochanter, on the anterior aspect of the bone. The plane of fracture of the shaft extends from above downwards and backwards. Around both points of injury are evidences of inflammatory action, and new bone of light spongy texture has been thrown out; but union of the fractured ends has not been completed.

From the Crimea, during the war with Russia, 1855.

2978 C. The lower portion of a right femur, which has received a comminuted gunshot fracture. The plane of fracture, commencing immediately above the internal condyle behind, passes upwards and forwards to six inches above the knee in front. A considerable portion of bone from the posterior and inner part of the lower fragment has been lost. Longitudinal fissures extend upwards into the shaft, from the apices of all the entering angles of its fractured margin.

From a Russian soldier, wounded in the Crimea by an Enfield rifle ball, which was found lodged in the medullary cavity. Amputation was performed at the middle of the thigh, and was followed by the death of the patient.

Presented by Assistant-Surgeon W. H. Price, 14th Regiment.

2978 D. Two fragments of a femur of a Russian prisoner, removed from the neck, September 9th, 1855.

Presented by W. Thornton, Esq., Surgeon, 9th Regiment, and J. R. Taylor, Esq., Deputy Inspector-General.

2978 E. Portion of the lower end of a right femur, and upper end of the corresponding tibia, removed by operation on account of a gunshot injury to the former bone. The posterior and inner side of the articular surface of the

outer condyle is broken away, leaving the cancellous tissue exposed; and a deep fissure extends upwards and outwards through the condyle but not quite reaching the outer surface of the bone. The tibia seems not to have been injured, but the articular cartilage is separated, and the surface of the bone roughened for a small space opposite to the principal point of injury to the femur.

From a private in the 77th Regiment, aged 19, who, at the siege of Sebastopol, September 8th, 1855, was wounded by a musket ball in the left popliteal space. The case was at first treated as a flesh-wound; but were inflammation of the joint coming on, the patient was placed under chloroform, on the 1st of October, and the ends of the bones excised by Mr. Lakin, Civil Surgeon attached to the British Army. The bullet was found lodged in the posterior part of the joint, partially impacted in the cancellous tissue of the outer condyle of the femur. The patient did well for some time, but died, apparently of exhaustion, on the 29th of October.

Presented by J. R. Taylor, Esq., Deputy Inspector-General.

2989 A. The middle portion of a right tibia, showing a comminuted gunshot fracture, extending obliquely downwards and forwards. Union has taken place, and a layer of spongy new bone is deposited around the seat of injury. Several necrosed portions of the extremities of the fragments are in process of separation. At the upper part, behind, is a large aperture leading into the medullary cavity of the bone; and to the margin of this, portions of the leaden bullet which inflicted the injury are adhering.

From a private in the 9th Regiment, aged 21, who received a perforating wound, from a conical bullet, through the calf of the right leg, whilst on duty in the trenches before Sebastopol, September 1st, 1855. The ball passed behind the tibia, fracturing the bone. The patient's health being good, an attempt was made to save the limb. Although the bones united, a profuse purulent discharge was kept up, which proved so exhausting that on the 3rd of November it was considered necessary to amputate a little below the tuberosity of the tibia. The patient recovered, with a good stump.

Presented by W. Thornton, Esq., Surgeon, 9th Regiment.

2998 A. A right tibia, which has been refractured at the seat of a former imperfectly united fracture. The point of injury is the junction of the middle and lower third. The oblique broken surfaces are rounded, and some new bone has been thrown out about them.

The first fracture was compound; and as the projecting end of the upper fragment could

not be reduced, it was sawn off. Inflammation and sloughing of the soft tissues took place; but the limb becoming at length tolerably firm, the man was able to walk. Falling by accident downstairs, the leg was broken again at the same spot, and the upper piece driven through the nearly healed wound. The patient, desiring to avoid a second long and tedious confinement, and from other considerations, it was thought advisable to amputate the limb. A quick recovery ensued.

Presented by Sir Stephen L. Hammick.

3011 A. The bones of a right ankle joint, which have been fractured by a musket ball. The ball has shattered the inner malleolus, and lodged between the tibia and astragalus, the latter bone being broken into four pieces.

Received from the Crimea, during the war with Russia, 1855.

3011 B. A right astragalus, with a musket ball lodged on its inner side. The ball struck the articulation between the astragalus and the lesser process of the calcaneum (which appears to have been fractured, as portions of it remain attached to the preparation), and then lodged in the hollow surface of the former bone, without penetrating its substance. The greater part of the surface of the bone, especially the inner and upper side, is roughened and eroded by inflammatory action.

From a British soldier, wounded at the battle of the Alma. The ball was not extracted; inflammation of the ankle joint set in; the leg was amputated, and the patient ultimately recovered.

Presented by J. G. Guthrie, Esq.

3012 A. The foot of a horse, dried with the tendons and ligaments, showing a recent comminuted fracture of the first phalanx (the "os suffraginis," or "long pastern" of veterinary surgeons), with laceration of one of the divisions of the flexor perforatus tendon.

Presented by Henry Budd, Esq.

3013 A. A left femur, which has been the subject of acute inflammation, in consequence of being grazed by a rifle ball. Nearly the whole shaft, from the trochanters to the condyles, is incrusted with a layer of new bone, in some parts deposited in the form of a very thin film and easily separable from the bone beneath, in others thicker and grooved longitudinally, and on the pos-

terior surface, especially about the middle of the shaft, it attains the thickness of half an inch, is of a porous or spongy texture, and irregularly nodulated or laminated in form. The surface of the bone beneath has suffered necrosis in many places, and has a pitted or worm-eaten appearance. The two articular extremities are not implicated in the disease.

From a private in the Rifle Brigade, aged 25, wounded at the siege of Sebastopol, September 8th, 1862, by a Minié rifle ball. The ball entered the outer side of the middle of the thigh, took an oblique course downwards and inwards, passing behind and just grazing the bone, and making its exit at the inner side of the thigh, a hand's breadth above the knee joint. There was no hæmorrhage, and the case was treated at first as a simple flesh-wound. On the sixth day, considerable swelling of the limb came on, with great constitutional disturbance, and a free incision was made along the track of the ball to the bone, which was found to be denuded of periosteum to a considerable extent. After this he progressed satisfactorily for a fortnight, when pyæmia set in with severe rigors, and abscesses formed in the right gluteal region and in the right knee joint, followed by great exhaustion and death on the 12th of November.

Presented by Henry Rooke, Esq.

3081 A. Portion of a right tibia, around the lower third of which an abundant deposit of new bone has taken place. Posteriorly the surface of this is smooth; but on the anterior and inner side is a large oval ulcer, extending into the medullary cavity. The interior of the new bone, exposed by the ulcerative process, is seen to have a finely reticulated character.

Presented by Sir Stephen L. Hammick.

3083 B. The greater part of a left tibia, on the surface of which, in consequence of long-continued and extensive ulceration of the integuments, much new bone has been deposited. The anterior portion of this appears to have been removed by the ulceration, which, in the lower third, has extended so deeply as to implicate the original surface of the shaft.

From a man 45 years of age. The ulcer had existed for a considerable period, occasionally healing, and then breaking out again. At length the limb was amputated, and the patient recovered.

Presented by Sir Stephen L. Hammick.

3083 C. The lower portion of a right tibia, on the anterior and inner surface of which

is a deposit of new bone surrounding an irregular and deep ulcer of the wall of the shaft. In the immediate neighbourhood of this the new bone is most abundant, and consists of fine delicate plates, standing perpendicularly to the shaft. Elsewhere it is spread out as a thin layer, porous in texture, and longitudinally grooved. The disease is said to have commenced in an ulcer of the integuments.

Presented by Sir Stephen L. Hammick.

3083 D. The lower portion of a left tibia, of considerable size and density. On a large oval space occupying the lower third of the inner surface, a coating of light spongy bone has been deposited, in consequence of an ulcer of the integuments.

Presented by Sir Stephen L. Hammick.

3083 E. A right tibia and fibula, on the surface of both of which much new bone has been deposited, most abundantly towards their lower extremities. This is chiefly in the form of flattened laminæ and nodules, with a smooth and dense surface; but on the inner surface of the tibia is a large, oval, elevated patch of bone with a porous surface, probably corresponding with an ulcer of the integument.

Presented by Sir Stephen L. Hammick.

3083 F. The right tibia of a young person, without the epiphyses. On the inner and anterior surface of the shaft, near the lower end, is a large oval space with a rough porous surface and thickened edges, which probably corresponded with an ulcer of the integuments. The adjoining portion of the shaft is covered by a fine layer of longitudinally grooved new bone, gradually thinning away from the margins of the ulcer.

Presented by Sir Stephen L. Hammick.

3083 G. The upper part of a left tibia. Upon its anterior surface, around and below the tubercle, is a large oval deposit of new bone, having a spongy surface, and most abundant on the outer side.

From a seaman who had a slight wound of the integuments below the knee, produced

by a fall, and which became a sloughing ulcer upon his being placed in the foul air of a close sick berth.

Presented by Sir Stephen L. Hammick.

3083 H. The upper part of a left tibia, very similarly diseased.

Presented by Sir Stephen L. Hammick.

3083 I. The middle part of a tibia, a portion of the surface of which is destroyed by the combined effects of ulceration and necrosis. A large flake of dead bone is in process of separation. Around the margin of the ulcer much new bone has been deposited.

From a seaman who, having a slight wound of the skin, was placed in a crowded and ill-ventilated sick berth. The wound was converted into a form of sloughing ulcer very prevalent at the time.

Presented by Sir Stephen L. Hammick.

3083 K. The lower portion of a left tibia, upon which a large deposit of new bone has taken place. Over an oval space on the inner surface, this has been removed by ulceration and necrosis. A large piece, consisting of the original superficial layer of the bone, incrusted by a new deposit, has perished, and is in process of separation.

The disease was produced by the same cause as in the last specimen.

Presented by Sir Stephen L. Hammick.

3083 L. The lower portion of a right tibia, the shaft of which is necrosed in consequence of a sloughing ulcer of the integuments. Much new bone, of light spongy character and nodular surface, is deposited upon its exterior.

Presented by Sir Stephen L. Hammick.

3083 M. The shaft of a tibia, a large portion of the surface of which has suffered inflammation in consequence of an ulcer of the integument. The Haversian apertures are greatly enlarged, and a thin layer of porous new bone has been deposited in many places. Near the lower end, a considerable portion of the wall of the shaft has been destroyed by ulceration or necrosis.

Presented by Sir Stephen L. Hammick.

3107A. The greater portion of a left tibia and fibula. The former has been much increased in thickness by the deposition of new bone upon the surface, which has acquired a very dense character and smooth exterior. In the upper part are several oval apertures, with smoothly rounded margins, leading towards the interior, being probably partially closed cloacæ, which have given exit to necrosed portions of the shaft. Ulceration has taken place over a large space on the inner side, forming in one part an oval cavity extending nearly through the entire thickness of the bone. Some new bone has also been deposited upon the inner side of the fibula, by means of which, at a point three inches above the malleolus, the two bones have formed a complete osseous union.

From a carpenter in the navy, who suffered for eleven years from an ulcerated leg, occasioned by a wound from an adze upon the anterior edge of the tibia. As his general health became affected, it was considered advisable to amputate the limb.

Presented by Sir Stephen L. Hammick.

3107 B. The left tibia, without the epiphyses, of a young person said to have had a "scrofulous tumour" of the leg. Upon the greater part of the surface a layer of new bone has been deposited. Over an oblong space on the anterior and inner side this is absent, and the surface of the shaft has been destroyed by ulceration. At the margins of this portion the new bone is thicker than elsewhere, and nodulated. In other parts it forms a delicate lamina, and is longitudinally grooved.

Presented by Sir Stephen L. Hammick.

3131 A. A skull, which has been the seat of extensive syphilitic disease. The posterior and lateral regions exhibit only a tuberculated and roughened condition of the surface; but around the vertex ulceration has destroyed the outer table to a large extent, and in several places penetrated through the diploë and inner table. An irregular sinuous groove, extending through the outer table and through more or less of the diploë, distinctly marks off the portion of bone thus affected. The exterior edge of this groove is smooth and rounded, as if healing action had commenced there. In some places the outer table is deeply undermined from the ulceration having proceeded more rapidly in the

diploë; this is seen particularly in the separate portion of the ulcer situated over the left orbit, which is connected with the larger portion only by a tunnel through the substance of the bone.

Presented by Sir Stephen L. Hammick.

3156 A. A left scapula, which has been the subject of acute inflammation. Large portions have suffered necrosis and been removed. Of the glenoid surface, neck, coracoid process, acromion, and spine, scarcely any traces are left. The remainder is of light spongy texture, with outgrowths of new bone of the same character, especially along the anterior costa and at the root of the acromion, where they arch over tunnel-shaped cavities from which sequestra have been removed. One of the original sequestra still remains imbedded at the last-named situation; many of the others are placed upon the bottom of the shade which contains the specimen.

From a girl, 14 years old. The disease first showed itself by pain at the top of the shoulder, followed by the formation of abscesses, which left numerous sinuses through which portions of necrosed bone were discharged. On the 10th of May, 1858, the whole of the bone forming the preparation was removed by operation. The acromial third of the clavicle, being similarly diseased, was also removed. The head of the humerus was healthy, and covered with its natural cartilage. The patient recovered, with very considerable use of the arm.

A full report of the case is published in the 'Medico-Chirurgical Transactions,' vol. xlii. p. 7.

Presented by G. M. Jones, Esq.

3186 A. The shaft of a tibia, the whole of which appears to have suffered necrosis. It terminates at both extremities by an irregular ulcerated margin. The surface is in many places excavated into little shallow pits, with rounded base and oblong form. About the middle of the shaft this process has proceeded so far as to lay bare the medullary cavity, exposing a portion of dead cancellous tissue about two inches long, of a darker colour than the rest, and lying loose in the cavity. It is probable that this was the portion of bone first affected, and that the inflammatory action subsequently extended itself to the remainder of the shaft.

The cause assigned for the disease was exposure to cold by standing for a length of time

in water, the person having previously been in good health; two or three days after, severe rigors came on, which, however, passed away, and the patient appeared in his usual health. About three weeks after, darting pains commenced in the leg, followed by swelling, then ulcerations of the surface, which spread, became foul, and discharged profusely; finally the limb was amputated.

Presented by Sir Stephen L. Hammick.

3186 B. The greater part of a left tibia, of which about three inches of the entire shaft, toward the lower end, has suffered necrosis. A groove of demarcation, more distinct at the upper than the lower boundary, separates the dead from the living bone. The surface of the tibia immediately above the necrosed part is thickly incrusted with spongy new bone, especially upon its anterior aspect. There is a similar but less abundant deposit upon the lower portion.

From a seaman in the navy, who received a small wound in the leg, which, owing to defective accommodation and ventilation, resulted in a severe sloughing ulcer.

Presented by Sir Stephen L. Hammick.

3196 A. A right tibia, the greater part of the shaft of which has perished by necrosis. The spine has not suffered, and affords attachment and support to the thick case of porous new bone which has formed around the dead portion. In this case are numerous cloacal apertures, through which the sequestrum (nine inches in length, and freely moveable in the cavity) can be seen.

Presented by Sir Stephen L. Hammick.

3196 B. A right tibia and fibula. A large portion of the shaft of the former, including the entire thickness of the upper two-thirds, has perished by necrosis, and is lying loose in an incomplete casing of new bone. The head and upper end of the tibia, having been separated from the shaft, and connected with the lower part only by the new growth of bone, has become considerably deflected to the outer side. Rough nodules of new bone have been thrown out on the surface of the fibula.

Presented by Sir Stephen L. Hammick.

3225 B. The upper half of a left femur, with some irregular spicular osseous outgrowths from the linea aspera and on the great trochanter.

From a man about 40 years of age, who died of psoas abscess.

Presented by Sir Stephen L. Hammick.

3229 A. A left tibia, on the middle of the anterior and inner surface of which, close to the spine, is an oval projection of hard bone. The surface of this is quite flat, and measures three-quarters of an inch in length and half an inch across. It is probably the base of an exostosis, which had been removed by the saw shortly before the death of the patient. The anterior margin, or spine, of the bone appears to have been somewhat deflected out of its course by the growth. *Presented by Sir Stephen L. Hammick.*

3245 B. The upper half of a right tibia. The upper three inches of the posterior surface is covered by an irregular lobulated mass of spongy or pumicestone-like bone, which probably formed the basis of an osteoid tumour. The front and sides of the bone, just below the tuberosity, are excavated, as if by ulceration or absorption, and the greater part of the surface bears marks of superficial ulceration. *Presented by Sir Stephen L. Hammick.*

Series LXV.—INJURIES AND DISEASES OF JOINTS.

3288 A. A left scapula and upper part of the corresponding humerus. The superficial layer of the articular surfaces has been destroyed by ulceration, and several deep rounded pits have been excavated in the cancellous tissue of both bones. New bone has been deposited around the margin of the glenoid fossa, and also, in a very delicate layer, upon both dorsal and ventral surfaces of the scapula.

From a strong, healthy seaman, who, having been thrown out of the top, in falling caught hold of a rope with his left hand, by which he had to suspend himself for some time before he could be extricated. Violent inflammation of the shoulder joint came on, resulting in the formation of abscess, and ultimately in the death of the patient.

Presented by Sir Stephen L. Hammick.

3291 A. The bones of a right elbow joint, the whole of the articular surfaces of which are evenly and superficially ulcerated. New bone of spicular form is thrown out around the margin of the ulcerated surfaces, more especially on that of the ulna.

The disease was caused by the joint having been laid open by a sharp piece of iron.

Presented by Sir Stephen L. Hammick.

3291 B. The bones of a left elbow joint, the articular surfaces of which are partially ulcerated. The superficial compact lamina of the greater sigmoid cavity of the ulna, and the corresponding surface of the humerus, are destroyed to a great extent, but the radial side of the articulation is nearly free from disease. Porous new bone, of tubercular and spicular form, has formed around the joint, more especially upon the ulna. Upon the posterior surface of the latter bone, commencing two inches below the olecranon, is a large oval deposit, upwards of a quarter of an inch in thickness, compact, but with numerous vascular perforations on the surface, and composed of cancellous tissue within.

The disease is said to have arisen without any evident cause.

Presented by Sir Stephen L. Hammick.

3291 C. The bones of an elbow joint in which the articular surfaces and the contiguous bone to some extent have been removed by ulceration. A large quantity of spongy nodular new bone has been thrown out around. It is probable that these changes were consequent upon a severely comminuted compound fracture, as lines may be traced on all the bones, which appear to have resulted from their reunion after such an injury. Thus, on the humerus, one passes obliquely from the middle of the articular surface to above the inner condyle, separating the last-named process with the greater part of the trochlea, from the rest of the bone. The outer condyle appears also to have been detached, as does the head of the radius and the coronoid process of the ulna *Presented by Sir Stephen L. Hammick.*

3291 D. The bones of a left elbow joint, the articular surfaces of which are destroyed by ulceration. The radius and ulna appear to have been fractured opposite

the tuberosity of the former, as their upper ends are placed somewhat obliquely to the shaft; but the patient to whom they belonged asserted that he did not remember any such injury. If this statement is correct, the displacement can only be accounted for on the supposition that portions of the entire thickness of the shaft have perished by necrosis. A considerable quantity of new bone has been thrown out, causing an osseous ankylosis between the radius and ulna, and between the olecranon and the lower part of the humerus. There is also a mass of bone, not unlike a detached coronoid process of the ulna, united with the front of the trochlea of the humerus on the one hand, and with the neck of the radius on the other.

Removed by amputation from a man 24 years of age, of scrofulous appearance.

Presented by Sir Stephen L. Hammick.

3291 E. The bones of a right elbow joint, the articular surfaces of which have been partially removed by ulceration. A thin layer of rough new bone has also been deposited on some parts of their surface, such as, if continued, would probably have led to osseous ankylosis. This is most marked in the humero-ulnar portion of the joint. Some new bone has formed upon the neighbouring surfaces of the shafts of the bones, especially on the line leading from the outer condyle of the humerus.

The disease arose from a heavy blow on the joint, received in falling from a great height, without, however, wounding the integuments. Severe inflammation set in, attended by intense pain and constitutional disturbance, when, at the patient's urgent request, the limb was amputated, after which he rapidly recovered.

Presented by Sir Stephen L. Hammick.

3303 A. The corresponding ends of a left femur and tibia, in which the articular surfaces have been almost entirely removed by ulceration. There are also two deep ulcerated cavities in the posterior part of the tibia. A small quantity of new bone has been thrown out around the diseased surfaces.

From a person 30 years of age.

Presented by Sir Stephen L. Hammick.

3303 B. The lower end of a right femur. The inner condyle has been separated, and

is said to have been disintegrated and lost in maceration. The remaining portion of the articular surface has the greater part of its compact superficial layer of bone removed by ulceration.

From a case in which severe inflammation of the knee joint followed a blow, which had probably caused fracture of the inner condyle.

Presented by Sir Stephen L. Hammick.

3303 c. The corresponding ends of the tibia and femur with the patella of a young person. The articular surfaces are superficially ulcerated.

Excised and presented by G. M. Jones, Esq.

3314 a. A right os innominatum and upper part of the corresponding femur. The articular surface of the acetabulum is almost entirely removed by ulceration; but a piece near the outer border, three quarters of an inch long, and about half that width, is necrotic. The surface for articulation with the sacrum appears also to have been the seat of ulceration, and has several deep cavities excavated in it. Nearly the whole of the ileum bears evidence of inflammatory action in its increased vascularity, and the deposition of new bone upon both inner and outer surfaces. The entire head of the femur and part of the neck is superficially ulcerated, leaving the cancellous tissue exposed and apparently healthy.

Presented by Sir Stephen L. Hammick.

3336 a. The upper end of a left femur. The neck is shortened and depressed. A considerable quantity of new bone has been deposited on its anterior surface, as also on the margin of the head and about the trochanters. The upper portion of the head has acquired a finely polished surface.

3344 a. Part of a left scapula and humerus, with a complete osseous ankylosis of the shoulder joint. The greater part of the head of the humerus must have been destroyed by ulceration or absorption. The shaft is drawn upwards, so that the great tuberosity is very close to the acromion. The texture of the bone about the point of junction, and in the tuberosities, is light, friable, and greasy.

3357 A. A moiety of a longitudinally bisected ankylosed knee joint. The femur and tibia are united to each other at an angle of 100°. There is no lateral displacement. The two medullary cavities are separated by tolerably compact bone of nearly an inch in thickness. The prominent inner condyle of the tibia is soft and friable, as if undergoing interstitial absorption, and a strong layer of compact new bone has formed within it, continuous with the wall of the shaft.

From a woman (Anne Lynch) whose knee joint was excised by Sir P. Crampton, at the County Dublin Infirmary, August 4th, 1823, and who died twenty-seven years after the operation.

Presented by Sir Philip C. Crampton.

3364 A. The bones of a left tarsus, with the second and third metatarsal bones, all firmly united to each other by osseous deposits between and around their articular surfaces.

Series LXVI.—DISEASES OF THE VERTEBRAL COLUMN.

3368 A. The second, third, and fourth cervical vertebræ, with osseous outgrowths on the anterior surfaces of their bodies, which, passing across the intervertebral spaces, have united the bones together.

3372 A. Seven dorsal vertebræ, the bodies of which are united by the coalition of laminar growths of bone like those described in No. 3372.

3380 B. A vertebral column (from the sixth cervical vertebra downwards), ribs, and pelvis. All the bones are firmly united together by growths of new bone passing between and around their articular surfaces, and occupying the place of the ligaments. The spaces between the bodies of the vertebræ which were occupied by the intervertebral substance remain, though enclosed on all sides by new bone. The ribs are united to the vertebræ both at their heads and tuberosities. The sacro-iliac synchondrosis and the pubic symphysis are completely osseous. New bone, in the form of rough tubercles

and spines, is thrown out on the ends of all the spinous processes of the vertebræ, in many instances passing bridgelike from one to the other, also on the sides of the lumbar vertebræ, upon the crest of the ilium, and about the symphysis and ramus of the pubis, and ramus and tuberosity of the ischium. There is a slight lateral curvature in the spine.

Found in a vault beneath the Church of St. Martin in the Fields, not far from the coffin of John Hunter.

Presented by Francis T. Buckland, Esq., June 25th, 1862.

3406 A. The five upper cervical vertebræ, with a portion of the occipital bone, affected at several points with ulceration (caries). The right transverse process, and both upper and lower articular surfaces of the same side, of the atlas are entirely destroyed. The disease has also affected the corresponding condyle of the occipital bone and the articular surface of the axis, the right transverse process of the third vertebra, and the left occipito-atloid articulation.

"From the Very Rev. William Buckland, D.D., Dean of Westminster, who died August 14th, 1856, in his seventy-third year. No other symptoms manifested themselves during life, but those attributed to melancholia."

Presented by Francis T. Buckland, Esq.

Series LXXII.—DISEASES OF THE ARTERIES.

3472 A. Part of a right lower extremity, in which the femoral artery was tied fifty years before death, by John Hunter, for the cure of a popliteal aneurysm. The portion of artery obliterated by the ligature extends from the origin of the profunda downwards to the division of the popliteal. An oblong mass of earthy matter occupies the situation of the aneurysm. The anastomosing vessels by which the circulation was continued are chiefly the sciatic, posterior branches of the profunda, and descending branch of the external circumflex.

The case is thus recorded, in a paper by Sir Everard Home, in 'The Transactions of a Society for the Improvement of Medical and Chirurgical Knowledge,' vol. i. p. 138, 1793, and reprinted in Palmer's edition of Hunter's works, vol. iii. p. 604, London, 1837:—

"Mr. Hunter's fourth patient was a coachman, thirty-six years old.

"The tumour in the ham was not very large, and situated ower down than usual, the whole leg being swelled, and the veins turgid. The pain he complained of was exceedingly violent, but being in a very bad state of health an operation was not thought advisable, and gentle pressure on the tumour was attempted; but, from the pain it occasioned, the operation was had recourse to, as the only chance of saving his life, although, from the irritable state in which he then was, even that seemed a forlorn hope.

"In performing the operation, the vein was not included in the ligature; but in other respects it was similar to the former.

"Immediately after the operation the limb was benumbed, and continued so for some time, which was singular, as the nerve had not been included. It became on the same day four or five degrees hotter than the other leg, and continued so for the first fourteen days, when the temperature became the same as that of the other limb.

"The sixth day the first dressings were removed, and the skin was united everywhere except at the passage of the ligature. It remained in this state till the twenty-first, when the cicatrix inflamed and ulcerated, with a sloughy appearance, and hardness up the thigh.

"On the twenty-ninth day the ligature came away. The sore now put on a better appearance; suppuration took place where the hardness had been in the course of the artery, and the parts became softer; the discharge gradually diminished, and in the seventh week the wound was healed.

"But it did not continue so; for in three days an inflammation took place, and an abscess formed, and burst at the cicatrix, which also healed up.

"About the end of the tenth week he was attacked with a very severe remitting fever, which lasted fourteen days, and left him much reduced; but in the fourteenth week he was so far recovered as to leave the hospital, and go into the country for the recovery of his health." *Presented by Thomas Wormald, Esq.*

Series LXXVII.—ANATOMY OF STUMPS AFTER AMPUTATION OF LIMBS.

3518 A. The stump of a left femur, five inches of which has suffered necrosis, and is lying loose in a very thick-walled and complete case of new bone. The axis of this case has a different direction from that of the original femur, being bent backwards at an obtuse angle.

The patient lived nearly three years after the amputation, which was performed in consequence of a disease of the knee joint. *Presented by Sir Stephen L. Hammick.*

END OF SUPPLEMENT I.

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